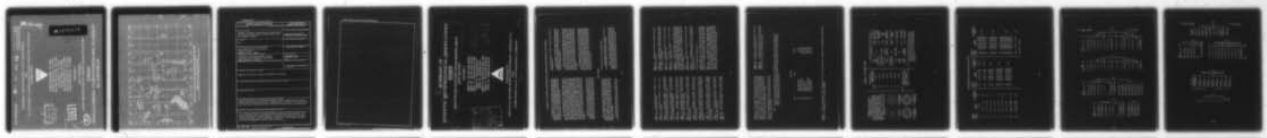
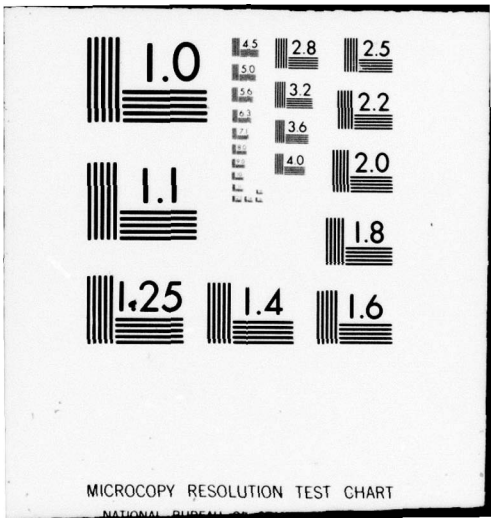
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SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO), SELECTE--ETC(U)
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SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO)

AD A073875

(12)

SELECTED SOUTH PACIFIC ISLAND MARINE AREAS NEW ZEALAND

VOLUME 4

AREA 25 - AUCKLAND WEST
AREA 26 - AUCKLAND EAST
AREA 27 - COOK STRAIT NW
AREA 28 - COOK STRAIT
AREA 29 - HAWKE BAY
AREA 30 - SOUTH ISLAND NW
AREA 31 - FOVEAUX STRAIT
AREA 32 - CHRISTCHURCH

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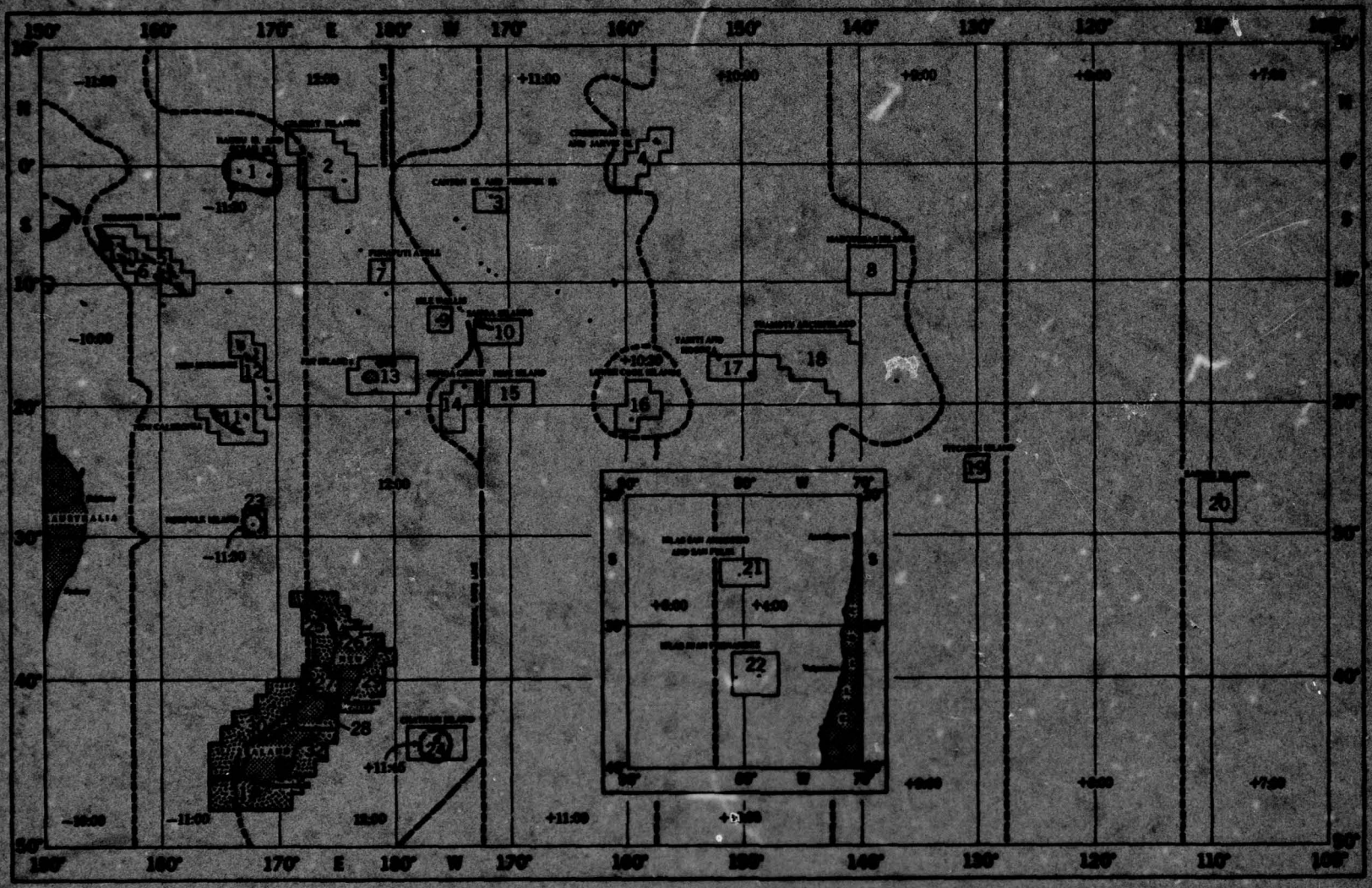
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THE NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, N.C.
FOR
COMMANDER, NAVAL OCEANOGRAPHY COMMAND

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SEPTEMBER 1979



SELECTED SOUTH PACIFIC ISLANDS SSMO AREAS AND STANDARD TIME ZONES

Shaded areas are included in this volume

A list of the area names and their central locations appears on the inside back cover

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report presents marine climatological data for specific coastal areas in 21 different tables including weather occurrence, wind direction and speed, cloud amount, ceiling height, visibility, precipitation, dry bulb, relative humidity, air-sea temperature difference, sea height and period, sea surface temperature and sea level pressure.

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SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO),

SELECTED SOUTH PACIFIC ISLAND MARINE AREAS, NEW ZEALAND.

VOLUME 4.

AREA 25 - AUCKLAND WEST,
AREA 26 - AUCKLAND EAST,
AREA 27 - COOK STRAIT NW,
AREA 28 - COOK STRAIT,
AREA 29 - HAWKE BAY,
AREA 30 - SOUTH ISLAND NW,
AREA 31 - FOVEAUX STRAIT,
AREA 32 - CHRISTCHURCH.

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(11) Sep 79

(12) 64 p.

PREPARED BY
THE NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, N.C.
FOR
COMMANDER, NAVAL OCEANOGRAPHY COMMAND

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SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (MONTHLY AND ANNUAL)

The SSMO series of coastal marine summaries is managed and produced by the Naval Weather Service Detachment, Asheville, N. C. for the Commander, Naval Oceanography Command. A list of published SSMO's is contained in the catalogue part of the "Guide to Standard Weather Summaries and Climatic Services", NAVAIR 50-1C-534.

The data summarized in the following tables were obtained from Tape Data Family 11 (TDF-11) Marine Surface Observations. The development and maintenance of TDF-11 was primarily funded by the Naval Weather Service Command. The source of these marine surface observations was punched cards of weather observations taken aboard vessels of varying registry. These observations were recorded on magnetic tape in a common format. Elements not in WMO code were converted to this code where possible. Where this was not possible, the original data were retained within the tape record as supplemental data. A very limited quality control was attempted as the punched cards were converted to taped records and, where possible, missing psychrometric data were computed.

Before the tables are prepared, extreme values of selected parameters are scrutinized so that obvious errors can be excluded. This method is necessarily subjective since the only available record of many observations is the punched card from which the tape records were prepared. Frequently there is no concrete evidence to prove or disprove the validity of questionable data.

Also, it should be noted that these data are based upon observations made by ships in passage. Such ships tend to avoid bad weather when possible, thus biasing the data file toward good weather samples.

Because the number of observations may vary from one table to the other, no absolute relationship exists between the tables. As an example, air temperature counts for Tables 13 and 17 may not be identical since only observations containing both air temperature and relative humidity were counted in Table 13 and only those with both temperature and air-sea temperature difference were counted in Table 17. No requirement for simultaneous recording of all elements was made.

The primary period of record is that period (extending back in time from the most recent data) during which eighty percent of the total number of observations were recorded. The overall period is the earliest to the latest observed data used in compiling the tables. Tables 18 and 19 were tabulated from selected decks only and the overall period indicates the period of record of this data source. The primary period for these tables is not shown.

THE TABLES

Percentage frequencies are computed to hundredths and rounded to tenths. An asterisk (*) indicates percentage frequency > 0 and $< .05$. A value followed by a plus sign indicates greater than or equal to that value (8+ means 8 or greater). NH = low cloud amount (or middle cloud amount when low clouds are not present). The hours given in this publication are GMT.

The geographic position shown on the tables is the central position (centroid) of the observations within the area. This value may fall outside irregular areas.

Annual values are computed on the basis of the sum of the monthlies divided by the number of months.

Tables 1 through 19 appear in numerical order for each month, with the annual tables appearing after the tables for December. Tables 20 and 21 appear at the end of the entire series, after the annual summary for Table 19. The series of summaries appear in numerical order by area number.

Table 1 - Percentage Frequency of Weather Occurrence by Wind Direction (8 pts.).

Table 2 - Percentage Frequency of Weather Occurrence by Hour (GMT).

Table 3 - Percentage Frequency of Wind Direction (8 pts.) by Speed and by Hour (GMT). This table includes mean wind speed (kts.) by direction (8 pts.).

Table 3A - Percentage Frequency of Wind Direction (8 pts.) by Speed and by Hour (GMT). This table includes mean wind speed (kts.) by direction.

Table 4 - Percentage Frequency of Wind Speed by Hour (GMT). This table includes mean speed by hour.

Table 5 - Percentage Frequency of Total Cloud Amount (Oktas) by Wind Direction (8 pts.). This table includes mean cloud amount by wind direction.

Table 6 - Percentage Frequency of Ceiling Heights (feet, NH > 4/8) and Occurrence of NH <5/8 by Wind Direction (8 pts.).

Table 7 - Cumulative Percentage Frequency of Occurrence of Ceiling Height (feet, NH > 4/8) and Visibility (Nautical Miles).

Table 7A - Percentage Frequency of Low Cloud Amount (or Middle Cloud Amount if Low Clouds are not present). and Percentage Frequency of Sky Obscured. Amounts are in Oktas.

Table 8 - Percentage Frequency of Wind Direction (8 pts.) vs. Occurrence or Non-Occurrence of Precipitation at Observation Time with Varying Values of Visibility (Nautical Miles).

Table 9 - Percentage Frequency of Wind Direction (8 pts.) vs. Wind Speed (kts.) with Varying Values of Visibility (Nautical Miles).

Table 10 - Percentage Frequency of Ceiling Heights (feet, NH > 4/8) and Occurrence of NH <5/8 by Hour (GMT).

Table 11 - Percentage Frequency of Visibility (Nautical Miles) by Hour (GMT).

Table 12 - Cumulative Percentage Frequency of Ranges of Visibility (Nautical Miles) and Ceiling Height (feet, NH > 4/8) by Hour (GMT).

Table 13 - Percentage Frequency of Relative Humidity (%) by Air Temperature (° F.).

Table 14 - Percentage Frequency of Wind Direction (8 pts.) by Air Temperature (° F.).

Table 15 - Means, Extremes, and Percentiles of Air Temperature (° F.) by Hour (GMT). Extreme temperatures are the one maximum and one minimum value appearing in the marine data file. The Extremes may be unrepresentative due to sampling errors. Extrapolation from the percentile values usually gives a better estimate of expected extreme conditions.

Table 16 - Percentage Frequency of Relative Humidity (%) by Hour (GMT).

Table 17 - Percentage Frequency of Air Temperature (° F.) and the Occurrence of Fog vs. Air-Sea Temperature Difference (° F.).

Air-Sea Temperature Difference is:

Positive when the air is warmer than the sea surface; Negative when the air is cooler than the sea surface. In the table heading, the limits of the temperature ranges appear in a vertical arrangement along the top of the table.

Table 18 - Percentage Frequency of Surface Wind Speed (kts.) and Direction (8 pts.) vs. Sea Height (feet). Source deck 128 for which data are available from mid-1963 was used for these tables. This deck represents the latest and most complete homogeneous source of wave data available. Here, only sea waves generated by local winds in the vicinity of the observer are summarized.

Table 19 - Percentage Frequency of Wave Height (feet) vs. Wave Period (seconds). In this table when both sea and swell waves are present in an observation, the higher of the two is used. If both are the same height, the longer period is chosen. When only one of the wave groups is observed, either sea or swell, it is used in the summary. Swell waves are those generated by winds distant from the local area where the observation is taken.

Tables 1-19 appear together for each month and in the annual summary. The following two tables appear at the end of the entire series for each area.

Table 20 - Monthly and Annual Percentage Frequencies and Means of Sea Surface Temperature (° F.).

Table 21 - Monthly and Annual Sea Level Pressures (millibars). This table includes means by hour and for all hours, extreme values and percentile values.

Note: In this volume, percentage frequencies at specified hours of the day refer to percentages of observations taken at those hours, rather than percentages of observations taken at all hours. Data at adjacent hours are summarized with data at synoptic hours, i.e., data from 02 and 04 GMT are combined with data from 03 GMT.

CONTENTS

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32	CHRISTCHURCH	554-632

Copies of this document are obtainable from the National Technical Information Service (NTIS), Springfield, Virginia 22161.

DIRECTION AND WEATHER CODES

CONVERSION OF WIND AND WAVE DIRECTION TO 8 POINTS

A reduced bias system was employed in converting wind and wave directions to 8 points. This method attaches weighting values to observations which overlap two different 8 point sectors and treats them as "decimal observation counts." These decimal quantities are rounded to whole numbers for presentation as "observational counts" in the tables. Figures 1-4 below show the 8 point system with other systems superimposed.

Note: Because of rounding, sub-total sums of "observation counts" may not equal grand totals.

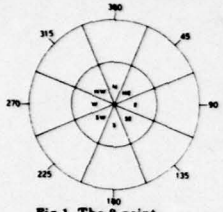


Fig 1. The 8 point direction system.

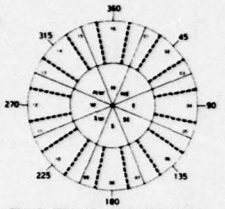


Fig 2. The 16 point direction system superimposed on the 8 point system.

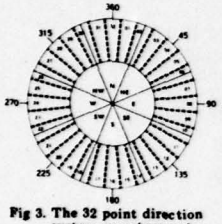


Fig 3. The 32 point direction system superimposed on the 8 point system.

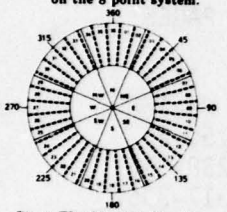


Fig 4. The 36 point direction system superimposed on the 8 point system.

VISIBILITY (VV)

CODE	INTERPRETATION (NAUTICAL MILES)
90-93	VV<1/2
94	1/2≤VV<1
95	1≤VV<2
96	2≤VV<5
97	5≤VV<10
98	10≤VV<25
99	VV≥25

NOTE: <means less than; >means greater than; ≤means less than or equal to; ≥means greater than or equal to.

PRESENT WEATHER (1960 WMO CODE 4677)

CODE	INTERPRETATION
58-59, 60-65, 91-94, (68-69,95,97 IF TEMP >40°F)	RAIN
80-82,(83-84 IF TEMP >40°F)	RAIN SHOWERS
50-55,58-59	DRIZZLE
56-57, 66-67	FREEZING PRECIPITATION
70-75,85-86, (68-69,83-84, 95,97 IF TEMP ≤40°F)	SNOW
76-79	OTHER FROZEN PRECIPITATION
87-90, 93-94, 96,99	HAIL
13,17, 19,29, 95-99	THUNDER LIGHTNING THUNDERSTORM

CODE	INTERPRETATION
10-12, 40-49	FOG (WITHOUT PRECIPITATION)
28	FOG (WITHOUT PRECIPITATION) PAST HOUR
04-05	SMOKE HAZE
06-09, 30-39	SPRAY BLOWING DUST BLOWING SNOW
00-03, 14-16, 18	NO SIGNIFICANT WEATHER AT OB TIME
00-49	NO PRECIPITATION AT OB TIME
50-99	PRECIPITATION AT OB TIME
20-27	PRECIPITATION PAST HOUR

NOTE: The following WMO codes were counted in two weather categories. 58-59 (rain and drizzle); 68-69 (rain and snow); 93-94 (rain and hail); 96 and 99 (hail and thunder/lightning/thunderstorm); 95 and 97 (snow and thunder/lightning/thunderstorm); or (rain and thunder/lightning/thunderstorm).

WAVE HEIGHT (from source decks 128 and 116)

RECORDED CODE (HALF METERS)	RANGE (METERS)	AS RECORDED IN TABULATION (FEET)
00	≤.25	<1
01	>.25 to .75	1-2
02	>.75 to 1.25	3-4
03	>1.25 to 1.75	5-6
04	>1.75 to 2.25	7
05	>2.25 to 2.75	3-9
06	>2.75 to 3.25	10-11
07	>3.25 to 3.75	12
08	>3.75 to 4.25	13-16
09	>4.25 to 4.75	
10	>4.75 to 5.25	17-19
11	>5.25 to 5.75	
12	>5.75 to 6.25	20-22
13	>6.25 to 6.75	
14	>6.75 to 7.25	23-25
15	>7.25 to 7.75	
16	>7.75 to 8.25	26-32
17	>8.25 to 8.75	
18	>8.75 to 9.25	
19	>9.25 to 9.75	
20	>9.75 to 10.25	33-40
21	>10.25 to 10.75	
22	>10.75 to 11.25	
23	>11.25 to 11.75	
24	>11.75 to 12.25	
25	>12.25 to 12.75	41-48
26	>12.75 to 13.25	
27	>13.25 to 13.75	
28	>13.75 to 14.25	
29	>14.25 to 14.75	
30	>14.75 to 15.25	49-60
31	>15.25 to 15.75	
32	>15.75 to 16.25	
33	>16.25 to 16.75	
34	>16.75 to 17.25	
35	>17.25 to 17.75	
36	>17.75 to 18.25	
37	>18.25 to 18.75	61-70
38	>18.75 to 19.25	
39	>19.25 to 19.75	
40	>19.75 to 20.25	
41	>20.25 to 20.75	
42	>20.75 to 21.25	
43	>21.25 to 21.75	71-86
44	>21.75 to 22.25	
45	>22.25 to 22.75	
46	>22.75 to 23.25	
47	>23.25 to 23.75	
48	>23.75 to 24.25	
49	>24.25 to 24.75	
50	>24.75 to 25.25	
51	>25.25 to 25.75	
52	>25.75 to 26.25	
53-99	>26.25 to 49.75	≥87

Indeterminate=INDET

JANUARY

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1858-1978

AREA 0025 AUCKLAND WEST
35.05 172.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	4.6	5.0	1.5	.0	.0	.0	.0	11.2	.0	.0	8.5	.0	2.7		.0	77.7
NE	10.7	6.9	3.9	.0	.0	.0	.0	21.5	1.7	.0	10.3	.0	.4		.0	66.1
E	2.6	.9	3.1	.0	.0	.0	.0	6.6	4.8	.0	7.5	.0	.0		.0	81.1
SE	2.1	.0	2.8	.0	.0	.0	.0	3.5	.4	.0	1.8	.0	.7		.0	93.6
S	2.7	.0	1.4	.0	.0	.0	.0	4.1	.0	.0	3.9	.0	2.5		.0	89.5
SW	1.3	2.2	.2	.0	.0	.0	.0	3.6	1.1	.0	1.1	.7	2.7		.0	90.8
W	3.8	1.1	.0	.0	.0	.0	.0	4.9	2.4	.0	3.8	.0	1.6		.0	87.3
NW	2.1	.5	2.1	.0	.0	.0	.0	4.6	2.6	2.1	4.1	.0	4.1		.0	82.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	2.6	2.6	.0	.0	.0	.0	.0	5.3	.0	2.6	2.6	.0	5.3		.0	84.2
TOT PCT	3.3	1.9	1.4	.0	.0	.0	.0	6.5	1.9	.3	4.3	.1	2.2		.0	85.4
TOT OBS:	697															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	2.3	1.4	1.4	.0	.0	.0	.0	5.0	.9	.0	6.0	.0	2.8		.0	85.3
06&09	4.0	1.7	.6	.0	.0	.0	.0	6.3	2.9	.0	2.9	.0	2.3		.0	85.7
12&15	5.6	3.5	2.8	.0	.0	.0	.0	11.3	1.4	.7	3.5	.0	2.1		.0	81.0
18&21	1.7	1.1	1.1	.0	.0	.0	.0	3.9	.6	.6	3.9	.6	1.1		.0	89.3
TOT PCT	3.2	1.8	1.4	.0	.0	.0	.0	6.3	1.4	.3	4.2	.1	2.1		.0	85.6
TOT OBS:	713															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	5.6	3.3	.4	.0	.0		10.1	10.1	11.5	13.0	7.9	14.8	8.0	4.0	10.3	10.6
NE	1.1	4.2	2.3	.2	.0	.0		7.9	9.3	9.1	6.0	7.1	6.5	10.6	4.0	6.7	5.8
E	.9	4.2	3.2	.6	.0	.0		8.9	10.9	10.3	18.0	3.5	12.0	5.3	12.0	8.8	11.0
SE	.9	5.3	3.1	1.3	.1	.0		10.6	11.7	12.0	5.0	13.1	9.7	9.8	4.0	11.8	5.5
S	.9	10.4	5.9	1.2	.6	.0		19.0	11.5	19.5	9.0	26.0	18.1	19.3	8.0	17.9	12.3
SW	.5	9.2	7.7	1.6	.1	.0		19.1	12.2	18.8	21.0	20.2	13.4	20.1	24.0	18.1	19.5
W	1.1	5.6	5.0	.8	.1	.0		12.6	11.5	10.8	17.0	10.2	14.4	13.4	12.0	11.8	20.5
NW	.5	2.9	2.9	.3	.0	.0		6.6	10.8	4.9	7.0	5.2	5.6	8.1	8.0	9.2	7.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.3							5.3	.0	3.0	4.0	4.8	5.6	5.3	24.0	5.3	6.8
TOT OBS	97	388	273	53	7	0	818		10.6	233	25	145	54	132	25	131	73
TOT PCT	11.9	47.4	33.4	6.5	.9	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.8	6.0	1.2	.1	.0		10.1	10.1	11.6	9.8	7.3	10.4
NE	3.1	3.8	.8	.2	.0		7.9	9.3	8.8	6.9	9.6	6.4
E	2.4	5.0	1.2	.3	.0		8.9	10.9	11.0	7.3	6.4	9.6
SE	2.3	6.3	1.7	.3	.1		10.6	11.7	11.3	12.2	8.9	9.6
S	4.7	10.7	3.1	.3	.2		19.0	11.5	18.5	23.9	17.5	15.9
SW	3.5	11.2	4.0	.5	.0		19.1	12.2	19.0	18.3	20.7	18.6
W	3.9	6.0	2.4	.4	.0		12.6	11.5	11.4	11.3	13.2	15.0
NW	2.1	3.7	.6	.2	.0		6.6	10.8	5.1	5.3	8.1	8.7
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.3						5.3	.0	3.1	5.0	8.3	5.9
TOT OBS	245	490	121	19	3	818		10.6	298	199	157	204
TOT PCT	30.0	59.8	14.8	2.3	.4		100.0		100.0	100.0	100.0	100.0

JANUARY

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1858-1978

AREA 0025 AUCKLAND WEST
36.8S 174.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.1	5.8	46.9	36.8	7.4	.0	.0	11.1	100.0	258
06&09	5.0	6.5	43.2	35.7	8.0	1.5	.0	11.4	100.0	199
12&15	8.3	7.6	44.6	31.8	6.4	1.3	.0	10.4	100.0	157
18&21	5.9	6.9	54.4	27.9	3.9	1.0	.0	9.5	100.0	204
TOT	43	54	388	273	53	7	0	10.6		818
PCT	5.3	6.6	47.4	33.4	6.5	.9	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.0	1.8	3.1	3.0		5.8
NE	1.9	.4	2.3	1.2		4.4
E	1.9	1.6	1.7	1.4		4.3
SE	4.9	2.3	3.1	1.4		3.7
S	5.5	4.5	7.2	3.9		4.6
SW	4.3	7.0	7.4	1.7		4.2
W	3.0	4.4	3.9	1.2		4.1
NW	1.4	1.6	2.2	2.7		5.4
VAR	.0	.0	.0	.0		.0
CALM	2.9	1.3	1.0	.3		2.8
TOT OBS	103	96	123	63	385	4.4
TOT PCT	26.8	24.9	31.9	16.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.0	.0	.8	2.3	.7	.2	.0	.0	.0	4.5	
NE	.0	.0	.0	1.2	.8	.1	.3	.0	.0	.0	2.6	
E	.0	.0	.0	.6	1.2	.3	.0	.0	.0	.0	4.5	
SE	.0	.0	.0	.7	1.6	.3	.5	.3	.0	.0	8.6	
S	.0	.0	.5	2.7	4.2	1.2	.2	.0	.0	.0	11.8	
SW	.0	.0	.0	2.2	2.3	1.0	.1	.0	.3	.0	14.6	
W	.0	.0	.3	1.2	1.9	.5	.5	.0	.0	.0	8.3	
NW	.0	.0	.0	1.3	1.4	.0	.3	.3	.0	.0	4.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	4.7	
TOT OBS	1	0	3	41	63	15	8	2	1	0	251	385
TOT PCT	.3	.0	.8	10.6	16.4	3.9	2.1	.5	.3	.0	65.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.3	.3	.3	.3	.3	.3	.3	.3
= OR >5000	.8	.8	.8	.8	.8	.8	.8	.8
= OR >3500	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
= OR >2000	6.2	6.4	6.7	6.7	6.7	6.7	6.7	6.7
= OR >1000	18.7	22.1	22.8	22.8	22.8	22.8	22.8	22.8
= OR >600	24.9	30.8	33.1	33.1	33.3	33.3	33.3	33.3
= OR >300	25.1	31.3	33.8	33.8	34.1	34.1	34.1	34.1
= OR >150	25.1	31.3	33.8	33.8	34.1	34.1	34.1	34.1
= OR > 0	25.1	31.3	33.8	33.8	34.1	34.1	34.1	34.4
TOTAL	98	122	132	132	133	133	133	134

TOTAL NUMBER OF OBS: 390 PCT FREQ NH <5/8: 65.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.4	18.6	11.8	15.4	9.2	5.3	8.4	8.7	12.0 .2	419

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PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1858-1978

TABLE 8

AREA 0025 AUCKLAND WEST
35.8S 172.8E

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.3	.0	.1	*	.0	.0	.0	.0	.0	.0	.4	
	TOT %	.3	.0	.1	.2	.0	.0	.0	.0	.0	.0	.6	
1/2<1	PCP	.0	.1	.0	.0	.1	*	.0	.0	.0	.0	.3	
	NO PCP	.4	.7	.4	.0	.1	.1	.1	.4	.0	.1	2.4	
	TOT %	.4	.9	.4	.0	.3	.2	.1	.4	.0	.1	2.7	
1<2	PCP	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.3	
	NO PCP	.1	.0	.1	.0	.0	.1	.0	.1	.0	.0	.4	
	TOT %	.2	.0	.1	.0	.0	.3	.0	.1	.0	.0	.7	
2<5	PCP	.5	.6	.0	.2	.4	*	.4	.2	.0	.0	2.3	
	NO PCP	.0	.0	.0	.1	.3	.5	.4	.4	.0	.0	1.7	
	TOT %	.5	.6	.0	.3	.7	.5	.8	.6	.0	.0	4.0	
5<10	PCP	.4	1.1	.5	*	.3	.5	.1	.1	.0	.3	3.3	
	NO PCP	2.8	2.4	2.5	2.0	4.2	4.5	4.6	1.5	.0	2.0	26.5	
	TOT %	3.2	3.4	3.0	2.0	4.5	4.9	4.7	1.7	.0	2.3	29.8	
10+	PCP	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.1	
	NO PCP	4.7	3.5	4.5	7.7	12.9	14.0	7.5	4.9	.0	3.0	62.0	
	TOT %	4.7	3.5	4.5	7.7	12.9	14.0	7.6	4.3	.0	3.0	62.1	
	TOT OBS												697
	TOT PCT	9.3	8.4	8.1	10.2	18.4	19.9	13.3	7.0	.0	5.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.0	.1	*	.0	.0	.0	.0	.0		.4	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.3	.0	.1	.2	.0	.0	.0	.0	.0	.0	.6	
1/2<1	0-3	.1	.4	.0	.0	.0	.0	.0	.0	.0	.1	.6	
	4-10	.2	.3	.3	.0	.2	.2	.0	.2	.0		1.4	
	11-21	.1	.2	.1	.0	.0	.0	.1	.1	.0		.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.4	.9	.4	.0	.2	.2	.1	.4	.0	.1	2.7	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.1	.0	.0	.1	.0	.1	.0		.4	
	11-21	.1	.0	.0	.0	.0	.1	.0	.0	.0		.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.0	.1	.0	.0	.3	.0	.1	.0	.0	.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.0	.0	.2	*	.1	.0	.0		.7	
	11-21	.1	.3	.0	*	.1	.4	.6	.6	.0		2.1	
	22+	.2	.1	.1	.6	.4	.1	.0	*	.0		1.6	
	TOT %	.5	.6	.1	.6	.7	.5	.8	.6	.0	.0	4.4	
5<10	0-3	.2	.6	.8	.1	.0	.1	.6	.2	.0	2.3	5.0	
	4-10	1.3	1.9	1.4	1.2	2.9	2.0	2.0	.7	.0		13.4	
	11-21	1.5	.7	.9	.4	.9	2.1	1.7	.7	.0		8.9	
	22+	.1	.1	.0	.3	.6	.7	.4	*	.0		2.3	
	TOT %	3.2	3.4	3.0	2.0	4.4	4.9	4.7	1.7	.0	2.3	29.5	
10+	0-3	.4	.2	.1	.6	.7	.4	.5	.0	.0	3.0	6.0	
	4-10	3.2	2.0	1.9	3.8	6.7	7.3	3.4	2.1	.0		30.4	
	11-21	1.4	1.2	2.3	2.5	4.3	5.0	3.1	2.0	.0		21.9	
	22+	.1	.0	.3	.4	1.0	1.1	.3	.2	.0		3.8	
	TOT %	5.0	3.4	4.6	7.6	12.8	13.8	7.6	4.2	.0	3.0	62.1	
	TOT OBS												704
	TOT PCT	9.7	8.3	8.3	10.4	18.2	19.7	13.1	6.9	.0	5.4	100.0	

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PERIOD: (PRIMARY) 1929-1978
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.8	.0	.8	10.2	14.1	5.5	2.3	.8	.0	.0	34.4	65.6	128
06&09	.0	.0	.0	6.3	13.4	1.8	1.8	.0	.0	.0	23.2	76.8	112
12&15	.0	.0	1.5	13.8	9.2	7.7	3.1	1.5	.0	.0	36.9	63.1	65
18&21	.0	.0	1.0	12.0	24.0	1.0	1.0	.0	1.0	.0	40.0	60.0	100
TOT	1	0	3	41	63	15	8	2	1	0	134	271	405
PCT	.2	.0	.7	10.1	15.6	3.7	2.0	.5	.2	.0	33.1	66.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.9	2.7	1.8	1.8	29.1	63.6	220
06&09	.6	1.1	.6	4.5	26.6	66.7	177
12&15	.0	4.2	.0	7.6	34.7	53.5	144
18&21	.6	2.8	.0	4.5	30.7	61.5	179
TOT	4	19	5	31	216	445	720
PCT	.6	2.6	.7	4.3	30.0	61.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <30YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.8	2.5	13.1	23.8	63.1	122
06&09	.0	.0	6.6	17.9	75.5	106
12&15	.0	3.2	17.5	20.6	61.9	63
18&21	.0	1.0	16.2	25.3	58.6	99
TOT	1	6	50	86	254	390
PCT	.3	1.5	12.8	22.1	65.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.2	.0	.0	.2	.0	2	.3
75/79	.0	.0	.0	.7	.8	1.7	.7	.3	25	4.2
70/74	.0	.0	.0	.8	2.0	4.7	7.1	4.2	112	18.8
65/69	.0	.0	.2	1.9	3.7	12.8	12.8	16.0	279	46.9
60/64	.0	.0	.3	.5	3.2	6.9	9.2	8.1	168	28.2
55/59	.0	.0	.0	.0	.0	1.3	.2	.0	9	1.5
TOTAL	0	0	3	22	58	163	179	170	595	100.0
PCT	.0	.0	.5	3.7	9.7	27.4	30.1	28.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
	.6	.2	.3	.7	.7	.8	.5	.4	.0	.0
	1.9	2.6	2.7	2.8	2.5	2.0	1.4	1.3	.0	1.5
	4.9	3.4	3.4	6.4	8.4	8.7	5.5	3.8	.0	2.4
	1.4	.7	.8	2.2	7.6	8.2	4.7	1.6	.0	1.0
	.2	.0	.0	*	.1	.5	.4	.3	.0	.0
	8.9	6.9	7.4	12.1	19.3	20.2	12.9	7.4	.0	4.9

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	80	79	77	68	63	59	54	68.8	261
06&09	83	79	75	68	61	60	59	67.9	200
12&15	75	74	70	65	60	59	57	64.9	153
18&21	75	73	72	65	60	59	58	65.4	202
TOT	83	78	74	67	61	59	54	67.0	816

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.4	12.8	35.1	23.4	21.3	78	188
06&09	.0	3.9	11.0	26.6	35.7	22.7	80	154
12&15	.0	.9	7.9	19.3	34.2	37.7	85	114
18&21	.0	2.6	7.3	23.2	31.1	35.8	84	151
TOT	0	25	61	164	185	172	81	607

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
17/19	.0	.0	.0	.0	.2	.3	.0	3	.0	.5
14/16	.0	.0	.0	.0	.8	.2	.2	7	.0	1.2
11/13	.0	.0	.0	1.3	.2	.8	.0	14	.0	2.3
9/10	.0	.0	.8	.7	.8	.5	.2	18	.0	3.0
7/8	.0	.0	1.5	.3	.5	.0	.0	14	.0	2.3
6	.0	.5	.7	1.3	1.2	.0	.0	22	.0	3.6
5	.0	.3	1.0	2.0	.7	.5	.0	27	.3	4.1
4	.0	3.0	2.8	2.0	.8	.0	.0	52	.2	8.4
3	.0	1.5	2.1	2.1	2.0	.2	.0	48	.3	7.6
2	1.5	1.8	3.6	3.6	.5	.0	.0	67	1.0	10.0
1	1.0	2.5	4.3	2.3	.3	.0	.0	63	1.0	9.4
0	.3	3.3	5.6	3.0	.2	.0	.0	75	1.0	11.4
-1	.3	1.8	4.1	1.8	.0	.0	.0	49	.2	7.9
-2	.2	1.5	5.3	1.2	.2	.0	.0	50	.3	7.9
-3	.2	2.3	3.0	.5	.0	.0	.0	36	.2	5.8
-4	.3	1.5	1.8	.2	.0	.0	.0	23	.0	3.8
-5	.3	1.5	1.3	.2	.0	.0	.0	20	.0	3.3
-6	.2	.3	1.0	.0	.0	.0	.0	9	.0	1.5
-7/-8	.2	.7	.3	.0	.0	.0	.0	7	.2	1.0
-9/-10	.0	.0	.2	.0	.0	.0	.0	1	.0	.2
-11/-13	.0	.0	.2	.0	.0	.0	.0	1	.0	.2
TOTAL	27	136	240	136	90	16	2	607	28	579
PCT	4.4	22.4	39.5	22.4	8.2	2.6	.3	100.0	4.6	95.4

PERIOD: (OVER-ALL) 1963-197?

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.7	.0	.0	.0	.0	.9
1-2	.2	3.3	.7	.0	.0	.0	4.2
3-4	.0	.9	.9	.0	.0	.0	1.7
5-6	.0	.2	1.2	.2	.0	.0	1.7
7	.0	.0	.4	.4	.0	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	5.1	3.2	.6	.0	.0	9.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.0	.0	.0	.0	.0	.1
1-2	.2	2.1	.2	.0	.0	.0	2.6
3-4	.0	.0	2.1	.0	.0	.0	2.1
5-6	.0	.2	.4	.0	.0	.0	.7
7	.0	.0	.2	.5	.0	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.4	3.0	.5	.0	.0	6.1

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.5
1-2	.0	1.6	1.2	.0	.0	.0	2.8
3-4	.0	1.1	1.8	.0	.0	.0	2.8
5-6	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.9	3.7	.2	.0	.0	7.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.7	.0	.0	.0	.0	1.4
1-2	.1	4.0	.8	.0	.0	.0	4.9
3-4	.0	1.4	1.4	.4	.0	.0	3.2
5-6	.0	.0	.7	.3	.0	.0	1.1
7	.0	.0	.5	.5	.0	.0	1.0
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.1	3.9	1.4	.0	.0	11.8

PERIOD: (OVER-ALL) 1963-1978

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TABLE 18 (CONT)

AREA 0025 AUCKLAND WEST 35.0S 172.0E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.4	.0	.0	.0	.0	1.7
1-2	.4	4.0	2.0	.0	.0	.0	6.5
3-4	.0	3.8	2.1	.6	.0	.0	6.5
5-6	.0	.0	1.4	.7	.2	.0	2.3
7	.0	.0	.2	.4	.0	.0	.6
8-9	.0	.0	.4	.2	.0	.0	.7
10-11	.0	.0	.2	.0	.2	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.6	.0	.6
17-19	.0	.2	.0	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	9.5	6.3	1.9	1.1	.0	19.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.6	.0	.0	.0	.0	2.1
1-2	.0	4.5	2.0	.0	.0	.0	6.5
3-4	.0	2.7	4.1	.6	.0	.0	7.4
5-6	.0	.5	2.0	.5	.0	.0	3.0
7	.0	.0	.8	.9	.0	.0	1.7
8-9	.0	.0	.1	.2	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.0	.1	.0	.4
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	9.6	9.0	2.4	.1	.0	21.6

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.2	.0	.0	.0	.0	.7
1-2	.0	3.1	.9	.0	.0	.0	4.0
3-4	.0	.9	3.8	.0	.0	.0	4.7
5-6	.0	.2	1.8	.0	.0	.0	2.0
7	.0	.0	.9	.7	.0	.0	1.6
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.4	7.7	.7	.0	.0	13.2

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	2.4	1.1	.0	.0	.0	3.4	
3-4	.0	.4	1.4	.0	.0	.0	1.8	
5-6	.0	.1	1.4	.1	.0	.0	1.5	
7	.0	.0	.3	.1	.0	.0	.4	
8-9	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.8	4.4	.2	.0	.0	7.4	96.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.3	5.1	.0	.0	.0	.0	12.4	
1-2	1.2	29.6	8.8	.0	.0	.0	39.6	
3-4	.0	11.0	17.3	1.5	.0	.0	29.8	
5-6	.0	1.2	9.3	1.7	.2	.0	12.4	
7	.0	.0	3.4	3.4	.0	.0	6.8	
8-9	.0	.0	1.0	.7	.0	.0	1.7	
10-11	.0	.0	.2	.0	.2	.0	.5	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.2	.0	.0	.7	.0	1.0	
17-19	.0	.2	.0	.5	.0	.0	.7	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.5	42.4	40.0	7.8	1.2	.0	100.0	410

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.7	6.3	8.6	4.1	2.9	1.4	.7	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	110	4
6-7	.0	1.6	5.2	7.0	7.4	4.7	2.5	2.5	1.1	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	144	7
8-9	.0	.7	3.6	4.3	5.0	2.5	2.7	1.1	1.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	96	7
10-11	.0	.5	.5	1.8	2.7	1.1	.7	.0	.2	.7	.2	.0	.2	.0	.0	.0	.0	.0	.0	38	8
12-13	.0	.0	1.4	3.0	1.1	.2	.9	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	7
>13	.0	.0	.0	.7	.7	.2	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	8	9
INDET	.7	1.6	.5	.5	.5	.5	.0	.0	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	5
TOTAL	6	47	87	88	90	47	33	16	19	7	1	2	1	0	0	0	0	0	0	444	6
PCT	1.4	10.6	19.6	19.8	20.3	10.6	7.4	3.6	4.3	1.6	.2	.5	.2	.0	.0	.0	.0	.0	.0	100.0	

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PERIOD: (PRIMARY; 1929-1978
(OVER-ALL) 1858-1978

AREA 0025 AUCKLAND WEST
35.05 172.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	2.3	.0	2.3	.0	.0	.0	.0	3.8	5.7	.0	6.8	.0	6.8		.0	76.8
NE	8.6	2.8	.0	.0	.0	.0	.0	11.4	4.5	.0	6.2	.0	1.4		.0	76.6
E	3.5	1.3	1.0	.0	.0	.0	1.3	7.0	1.3	.0	2.2	.0	5.1		.0	84.3
SE	1.2	.0	.3	.0	.0	.0	.0	1.5	.0	.0	2.7	.0	1.2		.0	94.7
S	1.6	.4	1.6	.0	.0	.0	.0	3.6	1.6	1.0	2.0	.0	.0		.0	91.9
SW	1.0	1.0	4.1	.0	.0	.0	.0	6.2	1.0	1.8	5.2	.0	1.0		.0	84.7
W	.0	1.0	.0	.0	.0	.0	.0	1.0	4.0	.0	5.1	.0	.0		.0	89.9
NW	1.6	.0	4.8	.0	.0	.0	.0	4.8	.0	.0	9.7	3.2	1.6		.0	80.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	3.2	.0	.0	.0	.0	3.2	.0	.0	.0	.0	.0		.0	96.8
TOT PCT	2.4	.8	1.7	.0	.0	.0	.2	4.9	2.0	.5	4.1	.2	1.9		.0	86.5
TOT OBS:	636															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	2.0	.5	1.0	.0	.0	.0	.0	3.5	2.0	.0	5.0	.0	3.0		.0	86.5
06&09	4.0	1.7	1.1	.0	.0	.0	.0	6.9	2.9	.0	4.0	.6	1.7		.0	84.6
12&15	.0	.8	1.5	.0	.0	.0	.0	2.3	1.5	1.5	2.3	.0	.0		.0	92.3
18&21	2.5	.0	3.1	.0	.0	.0	.6	5.7	1.9	.6	5.0	.0	3.8		.0	83.0
TOT PCT	2.3	.8	1.7	.0	.0	.0	.2	4.7	2.0	.5	4.2	.2	2.3		.0	86.2
TOT OBS:	664															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.0	6.6	2.8	.5	.0	.0		11.0	9.4	9.5	21.3	8.0	12.3	10.0	18.8	11.1	11.1
NE	1.0	6.1	4.4	.6	.0	.0		12.2	10.7	13.4	6.3	15.5	12.5	10.8	10.9	11.5	9.8
E	1.0	5.0	5.1	.9	.0	.0		12.1	11.4	13.9	7.5	14.0	10.7	10.8	4.7	16.3	4.9
SE	.7	6.8	4.8	1.0	*	.0		13.4	11.3	13.0	3.8	11.2	6.0	16.0	10.2	17.2	23.4
S	.8	5.3	9.7	2.7	.5	.0		19.3	14.2	19.3	23.1	26.1	22.6	16.3	7.0	17.0	13.9
SW	.8	5.8	5.2	2.1	.0	.2		14.0	13.7	13.0	16.9	12.1	17.5	14.3	18.8	14.1	12.7
W	1.0	4.7	1.7	.4	.0	.1		7.9	10.0	8.7	15.0	7.5	7.9	9.8	10.2	5.4	8.2
NW	.3	2.8	1.7	.0	.0	.0		4.9	8.6	7.6	1.3	4.1	4.4	3.3	3.9	5.9	6.1
VAR	.0	.0	.6	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.4							5.4	.0	1.7	5.0	1.5	6.3	13.0	15.6	3.5	9.8
TOT OBS	87	315	258	60	4	2	726		11.1	181	40	134	63	100	32	113	61
TOT PCT	12.0	43.4	35.5	8.3	.6	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.7	6.2	1.0	.1	.0		11.0	9.4	11.7	9.4	12.1	11.1
NE	3.5	6.3	2.3	.1	.0		12.2	10.7	12.1	14.3	10.8	10.9
E	3.0	6.6	2.3	.1	.0		12.1	11.4	12.7	12.9	9.3	12.4
SE	3.5	7.2	2.0	.7	.0		13.4	11.3	11.8	9.5	14.6	19.3
S	2.8	11.0	4.2	1.3	.0		19.3	14.2	20.0	25.0	14.0	15.9
SW	2.4	8.0	2.9	.6	.2		14.0	13.7	13.7	13.8	13.3	13.6
W	3.0	3.9	.8	.1	.1		7.9	10.0	9.8	7.6	6.8	6.4
NW	1.8	3.0	*	.0	.0		4.9	8.6	6.4	4.2	3.6	4.7
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.4						5.4	.0	2.3	3.0	13.6	3.7
TOT OBS	211	379	112	22	2	726		11.1	221	197	132	176
TOT PCT	29.1	52.2	15.4	3.0	.3		100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1858-1978

AREA 0025 AUCKLAND WEST
35.05 172.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.3	5.4	48.9	35.7	7.2	.5	.0	11.0	100.0	221
06&09	3.0	5.6	37.1	40.1	12.2	1.0	1.0	13.1	100.0	197
12&15	13.6	9.1	34.8	33.3	8.3	.8	.0	10.0	100.0	132
18&21	5.7	7.4	50.0	31.8	5.1	.0	.0	9.7	100.0	176
TOT	39	48	315	258	60	4	2	11.1		726
PCT	5.4	6.6	43.4	35.5	8.3	.6	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.0	1.2	3.9	1.6		5.0
NE	3.1	2.2	4.6	1.6		4.5
E	5.5	.9	3.4	2.1		3.9
SE	8.2	1.2	2.9	1.9		3.2
S	7.9	7.3	6.0	2.7		3.7
SW	3.9	4.4	3.4	2.0		4.2
W	2.4	.9	2.1	.9		4.1
NW	.2	1.2	3.2	1.7		6.0
VAR	.0	.0	.0	.0		.0
CALM	2.2	.2	.2	.7		3.1
TOT OBS	142	79	119	61	401	4.1
TOT PCT	35.4	19.7	29.7	15.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.5	.9	.9	.2	.6	.0	.0	.2	5.4	
NE	.2	.0	.2	1.1	2.2	.1	.5	.0	.0	.1	7.1	
E	.2	.0	.0	.5	1.1	1.1	.5	.2	.0	.0	8.4	
SE	.1	.0	.0	.2	.9	1.2	.0	.0	.2	.2	11.3	
S	.0	.0	.4	1.1	4.2	1.1	.5	.2	.0	.0	10.3	
SW	.0	.0	.3	1.0	1.9	.6	.2	.2	.0	.0	9.4	
W	.0	.0	.0	.4	1.1	.0	.0	.2	.0	.0	4.6	
NW	.2	.0	.2	.6	1.0	.7	.1	.2	.0	.0	3.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.2	.2	.0	.2	.0	.0	.0	.0	2.7	
TOT OBS	9	0	8	24	53	21	10	5	1	2	274	401
TOT PCT	.7	.0	2.0	6.0	13.2	5.2	2.5	1.2	.2	.5	68.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.7	.7	.7	.7	.7	.7	.7	.7
* OR >5000	1.7	1.7	1.9	1.9	1.9	1.9	1.9	1.9
* OR >3500	3.9	4.1	4.3	4.3	4.3	4.3	4.3	4.3
* OR >2000	8.2	9.4	9.9	9.9	9.9	9.9	9.9	9.9
* OR >1000	19.3	21.0	22.7	23.1	23.1	23.1	23.1	23.1
* OR >600	23.1	26.0	28.7	29.2	29.2	29.2	29.2	29.2
* OR >300	23.9	27.2	30.6	31.1	31.1	31.1	31.1	31.1
* OR >150	23.9	27.5	30.8	31.3	31.3	31.3	31.3	31.3
* OR > 0	23.9	27.5	31.3	31.8	31.8	32.0	32.3	32.3
TOTAL	99	114	130	132	132	133	134	134

TOTAL NUMBER OF OBS: 415 PCT FREQ NH <5/8: 67.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
12.1	26.2	14.1	9.0	6.7	6.7	5.4	7.6	11.2 .9	446

FEBRUARY

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1858-1978

AREA 0025 AUCKLAND WEST
35.6S 172.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	
	NO PCP	.3	.5	.0	.2	.0	.6	.2	.0	.0	.0	1.7	
	TOT %	.3	.5	.0	.2	.0	.9	.2	.0	.0	.0	2.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.2	.0	.2	.3	.0	.0	.0	.0	.0	.8	
	TOT %	.2	.2	.0	.2	.3	.0	.0	.0	.0	.0	.8	
2<5	PCP	.1	.4	.4	.2	.0	.2	.0	.1	.0	.2	1.4	
	NO PCP	.3	.2	.1	.2	.3	.2	.1	.2	.0	.0	1.6	
	TOT %	.4	.5	.5	.4	.3	.4	.1	.2	.0	.2	3.0	
5<10	PCP	.3	.5	.5	.0	.3	.2	.0	.2	.0	.0	2.0	
	NO PCP	3.9	2.5	1.8	2.0	3.1	9.4	2.3	.4	.0	2.2	21.7	
	TOT %	4.2	2.9	2.3	2.0	3.5	9.6	2.3	.4	.0	2.2	23.7	
10+	PCP	.0	.5	.0	.0	.2	.3	.1	.0	.0	.0	1.1	
	NO PCP	5.2	6.8	9.5	10.6	15.5	10.1	5.0	3.9	.0	2.5	69.2	
	TOT %	5.2	7.3	9.5	10.6	15.8	10.4	5.1	3.9	.0	2.5	70.3	
	TOT OBS												636
	TOT PCT	10.3	11.4	12.3	13.3	19.9	19.2	7.8	4.9	.0	4.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	4-10	.3	.3	.0	.0	.0	.5	.2	.0	.0		1.3	
	11-21	.0	.2	.0	.0	.0	.4	.1	.0	.0		.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.3	.5	.0	.2	.0	.9	.2	.0	.0	.0	2.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.2	.0	.0	.0	.0	.0		.3	
	11-21	.0	.2	.0	.0	.2	.0	.0	.0	.0		.3	
	22+	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	TOT %	.2	.2	.0	.2	.3	.0	.0	.0	.0	.0	.8	
2<5	0-3	.0	.0	.1	*	.0	.0	.0	.0	.0	.2	.3	
	4-10	.1	.0	.0	.0	.0	.2	.1	.2	.0		.6	
	11-21	.3	.4	.3	.2	.0	.0	.0	.0	.0		1.1	
	22+	.0	.2	.1	.2	.3	.2	.0	.0	.0		.9	
	TOT %	.4	.5	.5	.4	.3	.4	.1	.2	.0	.2	3.0	
5<10	0-3	.5	.5	.8	.3	.3	.3	.6	.0	.0	2.2	5.5	
	4-10	2.5	1.3	.3	1.3	1.6	1.0	1.2	.2	.0		9.4	
	11-21	.9	.8	1.0	.2	1.3	1.3	.4	.4	.0		6.3	
	22+	.4	.4	.2	.2	.3	1.0	.1	.0	.0		2.5	
	TOT %	4.2	2.9	2.3	2.0	3.5	3.6	2.3	.6	.0	2.2	23.7	
10+	0-3	.5	.6	.2	.2	.6	.6	.5	.4	.0	2.5	6.0	
	4-10	3.3	3.8	5.0	4.9	3.9	4.5	3.1	2.0	.0		30.5	
	11-21	1.4	2.7	3.6	4.7	8.7	4.0	1.4	1.5	.0		28.0	
	22+	.0	.2	.8	.9	2.6	1.3	.1	.0	.0		5.8	
	TOT %	5.2	7.3	9.5	10.6	15.8	10.4	5.1	3.9	.0	2.5	70.3	
	TOT OBS												636
	TOT PCT	10.3	11.4	12.3	13.3	19.9	19.2	7.8	4.9	.0	4.9	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1858-1978

AREA 0029 AUCKLAND WEST
35.05 172.08

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.8	.0	1.5	8.4	14.5	3.1	2.3	.0	.0	.8	31.3	68.7	131
06&09	1.7	.0	3.4	2.5	12.6	1.7	3.4	.8	.0	.0	26.1	73.9	119
12&15	.0	.0	.0	6.8	6.8	12.2	1.4	1.4	1.4	1.4	31.1	68.9	74
18&21	.9	.9	1.8	5.3	14.0	7.0	1.8	2.6	.0	.0	34.2	65.8	114
TOT	4	1	8	25	55	23	10	5	1	2	134	304	438
PCT	.9	.2	1.8	5.7	12.6	5.3	2.3	1.1	.2	.5	30.6	69.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.5	2.0	1.0	2.0	22.5	72.0	200
06&09	.0	.6	1.1	4.0	20.0	74.3	175
12&15	.0	2.3	.8	2.3	27.7	66.9	130
18&21	.6	3.1	1.3	3.8	28.3	62.9	159
TOT	2	13	7	20	161	461	664
PCT	.3	2.0	1.1	3.0	24.2	69.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.8	2.4	12.9	21.0	66.1	124
06&09	1.7	5.2	11.3	15.7	73.0	115
12&15	.0	.0	8.6	24.3	67.1	70
18&21	.9	3.8	12.3	24.5	63.2	106
TOT	4	13	48	87	280	415
PCT	1.0	3.1	11.6	21.0	67.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.2	.0	.2	.2	.0	.0	3	.6
75/79	.0	.0	.0	.2	1.2	1.0	.2	.2	14	2.7
70/74	.0	.0	.2	1.0	2.2	8.0	10.0	8.4	152	29.8
65/69	.0	.0	.0	1.2	4.1	10.4	16.5	16.1	246	48.2
60/64	.0	.0	.0	.0	2.5	4.5	6.3	5.1	94	18.4
55/59	.0	.0	.0	.0	.0	.0	.0	.2	1	.2
TOTAL	0	0	2	12	52	123	168	153	510	100.0
PCT	.0	.0	.4	2.4	10.2	24.1	32.9	30.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.3	.0	.0	.2	.0	.0	.0	*	.0	.0
	.8	.0	.6	.3	.5	.0	.0	.3	.0	.2
	3.5	5.7	4.2	3.3	4.1	2.5	2.1	3.5	.0	1.0
	3.5	5.0	6.1	8.2	12.8	7.4	2.7	.8	.0	1.6
	.2	.6	.5	3.9	6.2	5.0	1.3	.4	.0	.4
	.0	.0	.0	*	.1	.0	.0	.0	.0	.0
	8.4	11.3	11.4	15.9	23.7	15.0	6.1	5.1	.0	3.1

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	81	79	75	70	64	60	59	69.5	226
06&09	79	75	73	68	64	63	63	68.6	198
12&15	79	76	72	67	62	59	57	66.8	139
18&21	84	73	72	66	61	60	59	66.6	179
TOT	84	78	73	68	63	60	57	68.0	742

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	4.4	15.0	26.9	35.6	18.1	79	160
06&09	.0	2.2	9.4	27.5	36.2	24.6	82	138
12&15	.0	3.0	4.0	24.0	30.0	39.0	84	100
18&21	.0	.7	9.0	15.7	29.9	44.8	85	134
TOT	0	14	53	126	177	162	82	532

FEBRUARY

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1858-1978

TABLE 17

AREA 0025 AUCKLAND WEST
35.6S 172.8E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
11/13	.0	.0	.0	.0	.0	.4	.2	3	.0	.6
9/10	.0	.0	.0	.2	.6	.0	.0	4	.0	.8
7/8	.0	.0	.0	1.0	.4	.4	.2	10	.0	2.0
6	.0	.0	.6	.6	.6	.6	.0	12	.0	2.5
5	.0	.2	.8	1.0	1.8	.4	.0	21	.2	4.1
4	.0	.2	1.4	2.7	1.4	.6	.0	28	.2	5.5
3	.0	.4	1.8	4.3	1.2	.0	.0	38	.4	7.4
2	.0	.6	2.2	3.7	.8	.0	.0	45	.6	8.6
1	.0	.6	5.1	3.9	1.0	.0	.0	57	1.0	10.6
0	.2	2.5	8.4	7.4	1.0	.0	.0	95	1.0	18.4
-1	.0	2.2	6.1	2.7	.6	.0	.0	57	.6	11.0
-2	.2	1.6	5.7	2.5	.0	.0	.0	49	.6	9.4
-3	.0	1.4	2.5	1.6	.0	.0	.0	27	.2	5.3
-4	.0	.6	2.2	.6	.0	.0	.0	17	.0	3.5
-5	.0	.2	1.2	.8	.0	.0	.0	11	.0	2.2
-6	.0	.4	.8	.2	.0	.0	.0	7	.0	1.4
-7/-8	.0	.4	.4	.0	.0	.0	.0	4	.0	.8
-9/-10	.2	.2	.2	.0	.0	.0	.0	3	.0	.6
TOTAL	3	56	174	177	48	9	2	409	24	465
PCT	.6	11.9	37.7	38.2	9.8	1.8	.4	100.0	4.9	95.1

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.7	.0	.0	.0	.0	1.3
1-2	.0	3.0	.3	.0	.0	.0	3.3
3-4	.0	.8	1.2	.3	.0	.0	2.4
5-6	.0	.3	.8	.0	.0	.0	1.1
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.8	2.6	.3	.0	.0	8.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.7
1-2	.0	2.3	.3	.0	.0	.0	2.6
3-4	.0	1.6	2.7	.7	.0	.0	4.9
5-6	.0	.0	1.6	.0	.0	.0	1.6
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.3	.0	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.2	5.4	.7	.0	.0	10.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7
1-2	.0	4.3	.6	.0	.0	.0	4.9
3-4	.0	1.1	3.1	.3	.0	.0	4.6
5-6	.0	.0	.7	.6	.0	.0	1.2
7	.0	.0	.7	.7	.0	.0	1.3
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.3	.0	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.1	5.3	1.9	.0	.0	13.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.6	.0	.0	.0	.0	1.6
1-2	.0	4.3	1.1	.0	.0	.0	5.3
3-4	.0	2.0	3.1	.0	.0	.0	5.2
5-6	.0	.0	2.0	.3	.0	.0	2.3
7	.0	.1	.0	.1	.0	.0	.2
8-9	.0	.0	.3	.7	.1	.0	1.1
10-11	.0	.0	.3	.1	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.0	6.9	1.6	.1	.0	16.6

PERIOD: (OVER-ALL) 1963-1978

FEBRUARY

TABLE 18 (CONT)

AREA 0025 AUCKLAND WEST 35.6S 172.8E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	4.5	1.2	.0	.0	.0	5.7
3-4	.0	1.1	9.6	.3	.0	.0	11.0
5-6	.0	.3	3.4	2.1	.0	.0	5.9
7	.0	.2	.3	.6	.3	.0	1.5
8-9	.0	.0	.3	.3	.2	.0	.9
10-11	.0	.0	.0	.9	.3	.0	1.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.5	14.9	4.3	.9	.0	26.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.3	3.6	.7	.0	.0	.0	4.7
3-4	.0	1.3	2.9	.3	.0	.0	4.5
5-6	.0	.0	.7	.4	.0	.0	1.1
7	.0	.0	.1	.7	.0	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.2	4.4	1.4	.0	.0	11.4

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	2.1	.3	.0	.0	.0	2.5
3-4	.0	.8	.2	.0	.0	.0	1.1
5-6	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.9	1.1	.0	.0	.0	5.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.3	.0	.0	.0	.0	.7	
1-2	.3	1.1	1.0	.0	.0	.0	2.5	
3-4	.0	.4	1.4	.0	.0	.0	1.8	
5-6	.0	.0	.2	.0	.0	.0	.2	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.7	1.9	2.6	.0	.0	.0	5.2	97.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.8	5.1	.0	.0	.0	.0	10.9	
1-2	1.0	25.0	5.4	.0	.0	.0	31.4	
3-4	.0	9.0	23.7	1.9	.0	.0	34.6	
5-6	.0	.6	9.6	3.5	.0	.0	13.8	
7	.0	.3	1.9	1.9	.3	.0	4.5	
8-9	.0	.0	.6	1.3	.3	.0	2.2	
10-11	.0	.0	.3	1.0	.3	.0	1.6	
12	.0	.0	.3	.0	.0	.0	.3	
13-16	.0	.0	.3	.3	.0	.0	.6	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.7	40.1	42.3	9.9	1.0	.0	100.0	312

PERIOD: (OVER-ALL) 1950-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.9	7.5	6.9	4.8	2.7	.6	.9	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	83	4
6-7	.0	.3	5.1	6.3	6.3	2.7	3.3	.3	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	88	7
8-9	.0	.0	2.7	2.1	2.7	3.9	1.8	1.2	.6	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	54	8
10-11	.0	1.5	.3	3.9	3.6	2.7	.9	.9	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	55	7
12-13	.0	.0	1.8	.3	.6	1.2	.3	.3	1.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	22	9
>13	.0	.0	.0	1.2	.6	.3	.0	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	9	10
INDET	3.0	.9	.9	2.1	.6	.0	.6	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	4
TOTAL	13	34	59	69	57	38	26	10	20	6	2	0	0	1	0	0	0	0	0	335	6
PCT	3.9	10.1	17.6	20.6	17.0	11.3	7.8	3.0	6.0	1.8	.6	.0	.0	.3	.0	.0	.0	.0	.0	100.0	

MARCH

PERIOD: (PRIMARY) 1924-1978
(OVER-ALL) 1876-1978

AREA 0025 AUCKLAND WEST
35.8S 172.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	4.9	3.0	.0	.0	.0	.0	.0	7.9	4.9	.0	1.5	.0	1.1	.0		84.5
NE	7.4	2.9	.0	.0	.0	.0	.0	10.3	1.0	.0	1.9	.0	.2	.0		86.6
E	3.9	2.7	2.7	.0	.0	.0	.0	9.2	1.4	.0	.7	.0	1.1	.0		87.6
SE	2.9	4.1	.3	.0	.0	.0	.0	7.3	1.2	.0	.0	.0	1.8	.0		89.7
S	2.2	1.9	.8	.0	.0	.0	.0	4.9	1.1	1.1	.5	.0	3.3	.0		89.1
SW	1.9	.6	.3	.0	.0	.0	.0	2.8	2.2	.0	1.1	.0	2.2	.0		91.7
W	.0	7.7	.0	.0	.0	.0	.0	7.7	.0	.0	4.4	.0	1.1	.0		86.7
NW	2.6	4.1	4.1	.0	.0	.0	.0	10.8	1.5	.0	3.1	.0	1.0	.0		83.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	2.8	2.8	.0	.0	.0	.0	5.6	.0	.0	2.8	.0	.0	.0		91.7
TOT PCT	3.4	3.0	1.1	.0	.0	.0	.0	7.5	1.6	.1	1.4	.0	1.4	.0		88.0
TOT OBS:	709															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.9	2.2	.0	.0	.0	.0	.0	6.1	1.7	.0	.9	.0	.9	.0		90.5
06&09	2.6	2.6	1.5	.0	.0	.0	.0	6.7	2.1	.0	3.1	.0	3.1	.0		85.1
12&15	2.8	2.8	1.4	.0	.0	.0	.0	7.0	.0	.7	1.4	.0	.7	.0		90.1
18&21	4.0	4.0	3.4	.0	.0	.0	.0	11.5	1.7	.0	1.7	.0	.6	.0		84.5
TOT PCT	3.4	2.8	1.5	.0	.0	.0	.0	7.7	1.5	.1	1.8	.0	1.3	.0		87.6
TOT OBS:	742															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.0	4.8	2.4	1.1	.2	.0		9.4	11.1	9.7	19.0	8.7	12.8	6.3	4.1	11.6	4.4
NE	.5	8.9	3.4	.8	.1	.0		13.8	10.6	11.0	18.5	10.5	18.8	14.3	23.0	16.8	11.9
E	1.1	7.0	10.0	2.9	.3	.0		21.3	14.0	22.9	26.2	18.6	22.2	22.9	23.0	17.7	21.0
SE	.6	4.7	5.7	1.0	.2	.1		12.3	12.6	14.3	8.3	13.7	13.2	10.5	9.5	11.6	8.7
S	.5	4.2	6.1	1.2	.1	.1		14.3	12.5	16.6	3.0	13.3	7.3	13.0	14.9	10.7	16.3
SW	.8	4.0	5.4	.8	.1	*		11.1	12.4	9.9	8.9	16.2	9.0	10.9	8.1	11.3	8.3
W	.9	2.9	1.4	.8	.1	.1		6.1	11.4	6.0	10.1	7.0	6.3	4.0	5.4	3.4	11.5
NW	.8	3.7	1.9	.3	.0	.0		6.7	9.5	6.2	1.2	9.0	2.1	9.7	6.8	6.5	6.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.0							5.0	.0	3.3	4.8	3.0	8.3	8.4	5.4	2.3	11.1
TOT OBS	97	367	314	76	10	3	867		11.5	239	42	164	72	119	37	131	63
TOT PCT	11.2	42.3	36.2	8.8	1.2	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.2	4.5	1.0	.7	.0		9.4	11.1	11.1	10.0	5.8	9.3
NE	3.5	8.3	1.7	.3	.0		13.8	10.6	12.1	13.0	16.3	15.2
E	3.6	9.5	7.0	1.1	.1		21.3	14.0	23.4	19.7	22.9	18.8
SE	3.3	6.1	2.3	.4	.2		12.3	12.6	13.4	13.6	10.3	10.7
S	3.5	7.3	3.2	.2	.2		14.3	12.5	14.6	11.4	13.5	17.9
SW	1.9	6.5	2.6	.2	*		11.1	12.4	9.8	14.0	10.3	10.3
W	2.2	2.5	1.1	.2	.1		6.1	11.4	6.6	6.8	4.3	6.1
NW	2.4	3.3	1.0	.0	.0		6.7	9.5	5.4	6.9	9.0	6.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.0						5.0	.0	3.6	4.7	7.7	5.2
TOT OBS	247	416	172	27	5	867		11.5	281	296	156	194
TOT PCT	28.5	48.0	19.8	3.1	.6		100.0		100.0	100.0	100.0	100.0

MARCH

PERIOD: (PRIMARY) 1924-1978
(OVER-ALL) 1876-1978

AREA 0025 AUCKLAND WEST
36.8S 172.9E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.6	4.3	38.4	43.8	8.5	.7	.7	12.3	100.0	281
06&09	4.7	7.2	46.6	31.4	8.5	1.3	.4	11.1	100.0	236
12&15	7.7	9.6	42.3	30.1	10.3	.0	.0	10.4	100.0	156
18&21	5.2	5.2	42.8	36.1	8.2	2.6	.0	11.8	100.0	194
TOT	43	54	367	314	76	10	3	11.5		867
PCT	5.0	6.2	42.3	36.2	8.8	1.2	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.2	2.7	5.8	2.0		5.6
NE	2.5	2.2	2.4	4.6		5.2
E	0.3	1.9	4.7	5.7		4.3
SE	2.9	1.7	3.9	3.8		5.2
S	2.4	3.6	4.3	2.4		4.7
SW	3.2	3.6	5.3	1.0		4.2
W	.8	1.5	2.1	.4		4.5
NW	2.0	1.6	3.5	.9		4.6
VAR	.0	.0	.0	.0		.0
CALM	2.7	.5	1.4	.5		3.4
TOT OBS	116	85	148	94	443	4.7
TOT PCT	26.2	19.2	33.4	21.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.0	.2	1.6	1.9	.6	.2	.0	.0	.0	7.0	
NE	.0	.2	.5	1.1	1.7	1.2	.3	.1	.0	.1	6.5	
E	.2	.0	.5	2.0	3.0	1.4	.5	.2	.0	.2	12.8	
SE	.0	.0	.0	1.2	2.7	2.1	.5	.1	.0	.2	9.6	
S	.0	.0	.0	.7	2.6	1.3	.6	.3	.0	.0	7.2	
SW	.0	.2	.0	1.0	2.6	.7	.4	.0	.2	.0	7.9	
W	.0	.0	.0	.6	.3	.5	.2	.0	.0	.0	3.2	
NW	.0	.0	.5	.6	1.1	.5	.2	.2	.0	.0	4.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	4.5	
TOT OBS	3	2	7	40	71	37	12	4	1	2	264	443
TOT PCT	.7	.5	1.6	9.0	16.0	8.4	2.7	.9	.2	.5	59.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >90YD	* OR >0
* OR >6500	.7	.9	.9	.9	.9	.9	.9	.9
* OR >5000	.9	1.3	1.5	1.7	2.0	2.0	2.0	2.0
* OR >3500	3.3	3.9	4.1	4.3	4.6	4.6	4.6	4.6
* OR >2000	9.5	11.7	12.4	12.6	12.8	12.8	12.8	12.8
* OR >1000	20.4	26.7	29.1	29.3	29.5	29.5	29.5	29.5
* OR >600	24.7	32.8	36.9	38.2	38.4	38.4	38.8	38.8
* OR >300	24.9	33.4	38.4	39.7	39.9	39.9	40.3	40.3
* OR >150	24.9	33.4	38.6	39.9	40.1	40.1	40.8	40.8
* OR > 0	24.9	33.6	38.8	40.1	40.6	40.6	41.4	41.4
TOTAL	115	155	179	185	187	187	191	191

TOTAL NUMBER OF OBS: 461 PCT FREQ NH <5/8: 58.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
9.6	16.8	12.7	11.7	7.0	6.2	8.8	10.9	16.2	.6	513

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PERIOD: (PRIMARY) 1924-1978
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.1	.0	.0	.1	.0	.1	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.3	
	TOT %	.0	.0	.1	.0	.0	.1	.1	.1	.0	.1	.7	
1/2<1	PCP	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.9	.0	.0	.0	.0	.0	.1	.1	.0	.0	.4	
	TOT %	.9	*	.1	.0	.0	.0	.1	.1	.0	.0	.6	
1<2	PCP	.6	.1	.0	.1	.0	.0	.0	.1	.0	.0	.4	
	NO PCP	.0	.0	.1	.1	.0	.3	.1	.1	.0	.0	.6	
	TOT %	.0	.1	.1	.2	.0	.3	.1	.2	.0	.0	1.0	
2<5	PCP	.4	.2	.7	*	.0	.0	.0	*	.0	.0	1.3	
	NO PCP	.7	.4	.3	.2	.5	.5	.1	.5	.0	.0	3.1	
	TOT %	1.1	.6	1.0	.2	.5	.5	.1	.5	.0	.0	4.4	
5<10	PCP	.4	.7	.8	.7	.4	.1	.5	.4	.0	.1	4.2	
	NO PCP	1.8	5.9	4.8	1.9	2.7	3.8	.9	1.1	.0	1.7	24.6	
	TOT %	2.2	6.6	5.6	2.6	3.2	3.9	1.4	1.5	.0	1.8	28.9	
10+	PCP	.0	.5	.2	*	.2	.1	.0	.0	.0	.1	1.1	
	NO PCP	5.8	6.9	13.0	9.0	9.0	7.8	4.5	4.4	.0	3.0	63.4	
	TOT %	5.8	7.4	13.1	9.0	9.3	7.9	4.5	4.4	.0	3.1	64.5	
	TOT OBS												710
	TOT PCT	9.9	14.8	20.0	12.0	12.9	12.7	6.4	6.8	.0	5.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.3	
	4-10	.0	.0	.1	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.0	.0	.0	.0	.1	.0	.1	.0		.3	
	22+	.0	.0	.0	.1	.1	.0	.0	.0	.0		.1	
	TOT %	.0	.0	.1	.1	.1	.1	.1	.1	.0	.1	.8	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.0	.0	.0	.0	.0	.0	.0	.0		.3	
	11-21	.0	.0	.0	.0	.0	.0	.1	.1	.0		.1	
	22+	.0	*	.1	.0	.0	.0	.0	.0	.0		.1	
	TOT %	.3	*	.1	.0	.0	.0	.1	.1	.0	.0	.6	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.1	.1	.0	.0	.1	.2	.0		.6	
	11-21	.0	.0	.0	.0	.0	.3	.0	.0	.0		.3	
	22+	.0	.0	.0	.3	.0	.0	.0	.0	.0		.3	
	TOT %	.0	.1	.1	.3	.0	.3	.1	.2	.0	.0	1.1	
2<5	0-3	.0	.1	.1	.0	.1	*	.1	.0	.0	.0	.6	
	4-10	.6	.2	.1	.0	.2	*	.0	.3	.0		1.5	
	11-21	.0	.0	.4	*	.0	.4	.0	.1	.0		1.0	
	22+	.5	.2	.3	.2	.1	.0	.0	.0	.0		1.3	
	TOT %	1.0	.6	.9	.2	.5	.5	.1	.5	.0	.0	4.3	
5<10	0-3	.4	.3	.3	.1	.1	.4	.0	.3	.0	1.8	3.8	
	4-10	.9	4.3	.8	.9	1.2	1.8	.7	.9	.0		11.4	
	11-21	.3	1.4	3.5	1.3	1.7	1.3	.3	.3	.0		10.2	
	22+	.6	.6	1.0	.1	.1	.3	.3	.0	.0		3.2	
	TOT %	2.2	6.5	5.6	2.5	3.1	3.9	1.4	1.5	.0	1.8	28.6	
10+	0-3	.4	.2	.7	.6	.4	.3	.6	.6	.0	3.1	7.0	
	4-10	3.3	4.8	5.9	3.1	4.1	2.8	2.5	2.5	.0		29.1	
	11-21	1.7	2.5	6.1	4.5	3.8	4.0	.9	1.0	.0		24.5	
	22+	.4	.3	.3	.7	1.0	.8	.3	.3	.0		4.0	
	TOT %	9.8	7.9	13.1	9.0	9.2	7.8	4.5	4.4	.0	3.1	64.6	
	TOT OBS												718
	TOT PCT	9.9	15.1	19.9	12.2	12.9	12.6	6.3	6.8	.0	5.0	100.0	

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PERIOD: (PRIMARY) 1924-1978
(OVER-ALL) 1876-1978

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	1.3	11.4	12.7	5.1	3.8	.0	.0	.0	34.2	65.8	158
06&09	.0	.0	1.5	10.7	14.5	10.7	.8	1.5	.8	1.5	42.0	58.0	131
12&15	1.3	.0	.0	2.5	15.2	6.3	1.3	2.5	1.3	.0	30.4	69.6	79
18&21	1.7	1.7	2.5	9.1	21.5	9.1	3.3	.8	.0	.0	49.6	50.4	121
TOT	3	2	7	43	77	38	12	5	2	2	193	296	489
PCT	.6	.4	1.4	9.2	15.7	7.8	2.5	1.0	.4	.4	39.5	60.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.9	.0	1.7	2.6	27.2	67.7	235
06&09	.5	1.0	2.0	5.0	27.1	64.3	199
12&15	2.1	.0	2.1	2.8	32.9	60.1	143
18&21	2.3	1.7	.6	6.8	27.3	61.4	176
TOT	10	5	12	32	213	481	753
PCT	1.3	.7	1.6	4.2	28.3	63.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.7	2.0	16.0	21.3	62.7	150
06&09	.0	1.6	16.7	26.2	57.1	126
12&15	1.4	1.4	9.9	28.2	62.0	71
18&21	1.8	8.8	21.1	33.3	45.6	114
TOT	4	16	76	123	262	461
PCT	.9	3.5	16.5	26.7	56.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.2	.0	.0	.0	.0	.0	1	.2
75/79	.0	.0	.0	.2	.8	.8	.6	.2	13	2.5
70/74	.0	.0	.2	.2	2.5	8.0	11.9	9.0	166	31.8
65/69	.0	.0	.0	.2	5.0	12.8	17.6	19.0	285	54.6
60/64	.0	.0	.0	.0	1.7	3.8	2.7	2.7	57	10.9
TOTAL	0	0	2	5	52	133	171	161	522	100.0
PCT	.0	.0	.4	.6	10.0	25.5	32.8	30.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	*	.1	.0	.0	.0	.0	.0	.0	.0
.5	.1	.7	*	.3	.0	.1	.7	.0	.0
4.2	4.1	7.4	2.7	3.1	3.2	2.9	3.3	.0	1.0
4.0	7.5	9.4	8.4	8.6	6.8	3.3	4.0	.0	2.3
.1	.4	1.1	1.7	3.6	2.8	1.0	.2	.0	.0
8.9	12.2	18.7	12.9	15.6	12.8	7.2	8.2	.0	3.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	82	77	75	70	64	59	54	69.6	271
06&09	86	81	73	68	64	59	57	68.6	239
12&15	73	72	71	67	62	60	60	66.8	137
18&21	84	72	72	67	63	59	55	67.0	194
TOT	86	77	73	68	63	59	54	68.2	841

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	1.2	12.0	31.3	34.3	21.1	80	166
06&09	.0	1.4	12.2	27.9	27.9	30.6	82	147
12&15	.0	.0	6.3	21.1	35.8	36.8	85	95
18&21	.0	1.5	6.0	19.5	33.1	39.8	84	133
TOT	0	6	52	139	176	168	82	541

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
14/16	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
11/13	.0	.0	.0	.0	.5	.2	.2	.2	6	.0	1.0
9/10	.0	.0	.0	.0	.8	.2	.2	.2	8	.0	1.3
7/8	.0	.0	.0	.0	.8	.7	.2	.0	10	.0	1.6
6	.0	.0	.0	.2	.8	.5	.2	.0	10	.0	1.6
5	.0	.0	.0	.3	2.3	2.0	.0	.0	28	.0	4.6
4	.0	.0	.0	2.0	2.3	.8	.0	.0	31	.0	5.0
3	.0	.0	.3	2.0	2.6	.7	.0	.0	34	.0	5.5
2	.0	.0	.2	2.8	9.6	.8	.0	.0	82	.2	13.2
1	.0	.2	.7	4.2	6.7	1.0	.2	.0	79	.2	12.7
0	.0	.0	.7	8.3	5.4	.2	.0	.0	89	.2	14.3
-1	.0	.2	1.5	6.5	1.5	.0	.0	.0	59	.3	9.3
-2	.0	.0	2.6	7.7	1.8	.0	.0	.0	74	.3	11.7
-3	.0	.0	1.6	2.8	1.3	.0	.0	.0	35	.0	5.7
-4	.0	.0	1.3	1.8	.0	.0	.0	.0	19	.0	3.1
-5	.0	.0	1.3	2.4	.2	.0	.0	.0	24	.3	3.6
-6	.0	.2	1.0	.3	.0	.0	.0	.0	9	.0	1.5
-7/-8	.0	.2	1.0	.5	.0	.0	.0	.0	10	.0	1.6
-9/-10	.0	.2	.2	.0	.0	.0	.0	.0	2	.0	.3
-11/-13	.2	.2	.0	.0	.0	.0	.0	.0	2	.0	.3
-14/-16	.2	.0	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	2	6	75	256	224	42	9	4	614	9	605
PCT	.3	1.0	12.2	41.7	36.5	6.8	1.8	.7	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.0	.0	.0	.0	.0	1.3
1-2	.8	3.5	1.8	.0	.0	.0	6.0
3-4	.0	.8	1.4	.0	.0	.0	2.3
5-6	.0	.2	.3	.2	.0	.0	1.1
7	.0	.0	.2	.3	.0	.0	.5
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.3	.0	.0	.5	.0	.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	5.8	3.9	1.1	.5	.0	12.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1
1-2	.1	4.4	1.5	.0	.0	.0	6.0
3-4	.3	.6	1.9	.1	.0	.0	2.9
5-6	.0	.6	1.3	.0	.0	.0	2.0
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.4	.0	.4
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.6	.0	.0	.0	.0	.6
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	6.3	3.1	.4	.4	.0	12.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.7	.0	.0	.0	.0	1.5
1-2	.4	3.6	2.5	.0	.0	.0	6.5
3-4	.0	1.1	6.1	.5	.0	.0	7.7
5-6	.0	.8	1.6	.3	.0	.0	2.7
7	.0	.0	.5	.3	.0	.0	.8
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.6	.0	.0	.6
12	.0	.0	.0	.0	.3	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	6.1	10.8	1.8	.3	.0	22.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.1	1.5	1.5	.0	.0	.0	3.0
3-4	.0	1.5	3.0	.3	.0	.0	4.8
5-6	.0	.0	1.9	.0	.0	.0	1.9
7	.0	.0	.4	.1	.0	.0	.5
8-9	.0	.0	.3	.9	.3	.0	1.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.3	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.1	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	3.3	7.1	1.3	.4	.3	12.4

PERIOD: (OVER-ALL) 1963-1978

MARCH

AREA 0025 AUCKLAND WEST 35.0S 172.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	2.7	1.1	.0	.0	.0	3.7
3-4	.0	1.3	2.1	.0	.0	.0	3.4
5-6	.2	.0	1.0	.2	.0	.0	1.4
7	.3	.0	.8	.2	.0	.0	1.3
8-9	.0	.3	.3	.3	.0	.0	.8
10-11	.0	.0	.0	.2	.0	.3	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.4	5.2	.9	.2	.3	11.5

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.4	.0	.0	.0	.0	.9
1-2	.1	2.9	1.4	.0	.0	.0	4.4
3-4	.0	.1	1.5	.1	.0	.0	1.6
5-6	.1	.3	1.8	.1	.0	.0	2.2
7	.0	.0	.6	.6	.0	.0	1.1
8-9	.0	.0	.6	.3	.0	.0	.8
10-11	.0	.0	.6	.4	.0	.0	.9
12	.0	.0	.3	.0	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.1	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	3.6	6.6	1.3	.0	.1	12.3

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.6
1-2	.2	.6	.2	.0	.0	.0	1.0
3-4	.0	1.1	.8	.2	.0	.0	2.1
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.3	.0	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.2	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.3	1.0	.2	.0	.2	4.2

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.1	.0	.0	.0	.0	.4	
1-2	.4	3.7	.3	.0	.0	.0	4.4	
3-4	.0	.6	.6	.0	.0	.0	1.2	
5-6	.0	.3	.6	.0	.0	.0	.9	
7	.0	.0	.3	.3	.0	.0	.6	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.3	.0	.0	.0	.0	.3	
17-19	.0	.3	.0	.0	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	5.3	2.0	.3	.0	.0	8.2	95.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.7	3.1	.0	.0	.0	.0	9.8	
1-2	2.2	24.6	10.4	.0	.0	.0	37.3	
3-4	.3	7.0	17.4	1.1	.0	.0	25.8	
5-6	.3	2.2	8.7	.8	.0	.0	12.0	
7	.3	.0	3.1	1.7	.0	.0	5.0	
8-9	.0	.6	1.1	2.0	.3	.0	3.9	
10-11	.0	.3	.6	1.1	.8	.3	3.1	
12	.0	.0	.3	.5	.3	.0	.8	
13-16	.0	.3	.0	.5	.0	.3	.8	
17-19	.0	.8	.0	.0	.0	.3	1.1	
20-22	.0	.0	.0	.0	.3	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.8	38.9	41.5	7.3	1.7	.8	100.0	357

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	5.8	10.3	5.3	3.5	2.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	110	4
6-7	.3	1.3	3.5	5.8	6.0	3.0	2.3	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	94	6
8-9	.0	.0	2.8	4.0	3.0	2.3	1.3	1.3	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	64	8
10-11	.0	3.3	2.8	1.8	1.3	.8	.5	.3	1.3	.0	.0	.0	.0	.8	.5	.0	.3	.0	.0	53	10
12-13	.0	.0	3.0	1.0	1.3	1.0	.8	.3	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	31	7
>13	.0	.0	.0	.5	2.0	.0	.0	.0	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	16	11
UNDET	1.8	1.0	1.3	.5	1.3	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	6
TOTAL	9	45	94	75	73	38	22	10	14	9	1	1	1	4	2	0	1	0	0	399	6
PCT	2.3	11.3	23.6	18.8	18.3	9.5	5.5	2.5	3.5	2.3	.3	.3	.3	1.0	.5	.0	.3	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1887-1977

AREA 0025 AUCKLAND WEST
36.0S 172.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	10.2	1.1	2.6	.0	.0	.0	.0	14.0	3.0	.0	.0	1.5	.0		.0	81.5
NE	11.3	.6	3.2	.0	.0	.0	.0	15.1	2.3	1.2	1.7	.0	2.3		.0	77.4
E	5.4	4.4	3.8	.0	.0	.0	.0	13.7	2.9	.0	.6	.0	1.3		.0	81.9
SE	6.7	1.9	1.5	.0	.0	.0	.0	10.0	5.6	1.5	.0	.0	1.5		.0	81.5
S	1.7	2.3	1.0	.0	.0	.0	.0	5.0	2.2	.3	.7	.0	.0		.0	91.8
SW	1.1	5.7	.5	.0	.0	.0	.1	7.4	1.6	.8	.0	.0	.0		.0	90.3
W	2.7	5.4	.0	.0	.0	.0	.7	8.9	3.0	1.0	1.0	.0	.0		.0	86.1
NW	7.5	9.1	4.3	.0	.0	.0	.0	20.9	2.1	2.1	.0	.0	.0		.0	77.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	5.6	.0	2.8	.0	.0	.0	.0	8.3	.0	.0	.0	.0	.0		.0	91.7
TOT PCT	4.6	3.6	1.7	.0	.0	.0	.1	10.1	2.4	.7	.5	.1	.5		.0	85.8
TOT OBS:	823															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.1	2.3	.9	.0	.0	.0	.0	7.3	2.7	.0	.5	.5	.5		.0	88.6
06&09	4.8	4.1	3.0	.0	.0	.0	.0	11.8	1.5	.4	.7	.0	.7		.0	84.9
12&15	3.6	3.6	1.2	.0	.0	.0	.0	8.5	3.0	1.8	.6	.0	.0		.0	86.1
18&21	5.8	4.5	4.0	.0	.0	.0	.4	14.8	2.7	.9	1.3	.0	.4		.0	80.3
TOT PCT	4.7	3.6	2.4	.0	.0	.0	.1	10.8	2.4	.7	.8	.1	.5		.0	84.9
TOT OBS:	879															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	2.7	3.5	1.1	.4	.0		8.5	14.8	7.3	11.4	11.5	9.2	8.0	6.4	5.8	11.7
NE	.7	4.2	4.1	1.1	.3	.1		10.5	13.1	11.1	11.4	9.0	9.5	10.0	11.5	12.1	9.8
E	.4	3.5	5.2	1.8	.3	.0		11.2	14.9	11.3	12.1	13.0	13.9	8.9	11.5	7.9	14.4
SE	.4	2.8	3.5	1.4	.2	.0		8.4	14.9	9.6	3.8	6.6	4.2	11.9	5.1	10.6	7.6
S	.8	5.7	9.4	1.8	.0	.0		17.7	13.4	12.7	20.5	23.9	22.9	18.8	11.5	17.9	8.0
SW	.9	7.4	10.2	3.0	.6	.0		22.1	14.1	25.0	19.7	19.7	23.2	18.6	28.2	24.1	18.8
W	2.4	3.4	3.9	1.6	.5	.0		11.8	12.5	13.0	15.2	10.9	7.6	11.9	11.5	12.1	14.5
NW	.5	2.3	1.9	.8	.1	.0		5.6	12.6	7.1	3.0	4.4	4.2	6.0	9.0	3.1	9.3
VAR	.0	.0	.6	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.2							4.2	.0	2.9	3.0	1.1	5.3	3.8	5.1	3.0	10.6
TOT OBS	103	295	384	117	22	1	922		13.2	208	33	183	95	137	39	161	66
TOT PCT	11.2	32.0	41.6	12.7	2.4	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.3	3.6	2.7	.7	.1		8.5	14.8	7.9	10.7	7.7	7.2
NE	2.3	5.7	2.0	.2	.2		10.5	13.1	11.1	9.2	10.4	11.5
E	1.9	4.1	4.4	.8	.0		11.2	14.9	11.4	13.3	9.5	9.8
SE	1.3	3.6	2.7	.8	.0		8.4	14.9	8.8	5.8	10.4	9.7
S	3.3	8.3	5.4	.7	.0		17.7	13.4	13.8	23.6	17.2	13.0
SW	3.8	11.0	6.0	1.3	.0		22.1	14.1	24.3	20.9	20.7	22.5
W	3.9	5.2	1.4	1.2	.2		11.8	12.5	13.3	9.8	11.8	12.7
NW	1.1	3.0	1.1	.4	.0		5.6	12.6	6.5	4.3	6.7	5.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.2						4.2	.0	2.9	2.5	5.7	6.6
TOT OBS	216	409	236	56	5	922		13.2	241	278	176	227
TOT PCT	23.4	44.4	25.6	6.1	.5		100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1887-1977

AREA 0025 AUCKLAND WEST
36.0S 172.9E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.9	10.0	29.0	44.0	12.4	1.7	.0	13.2	100.0	241
06&09	2.5	4.7	33.5	45.3	11.9	1.8	.4	13.6	100.0	278
12&15	5.7	8.0	42.0	35.8	7.4	1.1	.0	11.2	100.0	176
18&21	6.6	5.7	25.6	39.2	18.1	4.8	.0	14.4	100.0	227
TOT	39	64	295	384	117	22	1	13.2		922
PCT	4.2	6.9	32.0	41.6	12.7	2.4	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.5	.7	2.4	3.9		5.7
NE	1.2	.6	2.3	3.4		5.8
E	2.3	1.1	1.2	1.7		4.4
SE	2.4	1.4	2.6	2.9		4.9
S	7.5	3.4	7.3	3.7		4.3
SW	6.0	8.1	8.8	2.6		4.3
W	2.7	4.2	4.2	1.2		4.5
NW	.9	.8	2.4	1.8		5.4
VAR	.0	.0	.0	.0		.0
CALM	1.5	.2	.8	.8		4.1
TOT OBS	136	107	168	112	523	4.7
TOT PCT	26.0	20.5	32.1	21.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.1	.2	1.1	1.1	.9	.9	.1	.0	.1	.0	3.4	
NE	.4	.2	.7	1.0	1.8	*	.2	.0	.0	.0	3.3	
E	.0	.0	.1	.2	1.5	.2	.1	.0	.0	.2	4.0	
SE	.0	.0	.4	.7	2.6	.7	*	.0	.2	.0	4.6	
S	.0	.0	.0	1.3	5.1	1.2	.2	.0	.0	.2	13.9	
SW	.0	*	.2	1.9	4.0	2.4	.8	.2	.0	.4	15.7	
W	.0	.1	.3	.9	1.7	.5	.5	.0	.0	.0	8.1	
NW	*	.0	.3	.8	1.0	.6	.4	.0	.2	.0	2.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.6	.0	.0	.4	.2	.0	.0	.0	2.1	
TOT OBS	3	3	19	41	97	36	14	1	3	4	302	523
TOT PCT	.6	.6	3.6	7.8	18.5	6.9	2.7	.2	.6	.8	57.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3
* OR >5000	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4
* OR >3500	3.8	4.5	4.5	4.5	4.5	4.5	4.5	4.5
* OR >2000	9.7	12.0	12.2	12.2	12.2	12.2	12.2	12.2
* OR >1000	24.0	29.7	30.3	30.3	30.5	30.5	30.6	30.6
* OR >600	28.5	37.1	38.0	38.2	38.5	38.5	38.7	38.7
* OR >300	29.2	38.9	41.6	41.9	42.3	42.5	42.7	42.7
* OR >150	29.2	38.9	41.9	42.3	42.8	43.0	43.2	43.2
* OR > 0	29.4	39.1	42.3	42.7	43.2	43.4	43.9	44.1
TOTAL	164	218	236	238	241	242	245	246

TOTAL NUMBER OF OBS: 558 PCT FREQ NH <5/8: 55.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
4.9	14.4	16.3	10.0	10.8	6.7	7.4	9.2	19.9	.7	609

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1887-1977

AREA 0025 AUCKLAND WEST
36.0S 172.9E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.2	.0	.0	.0	.0	.1	.0	.0	.0	.5	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.4	.0	.0	.0	.0	.1	.0	.0	.0	.6	
1/2<1	PCP	.1	.0	.2	.1	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.1	.0	.2	.1	.0	.0	.1	.0	.0	.0	.5	
1<2	PCP	.0	.0	.1	.0	.0	.0	.1	.1	.0	.0	.4	
	NO PCP	.0	.2	.0	*	.1	.0	.0	.0	.0	.0	.4	
	TOT %	.0	.2	.1	*	.1	.0	.1	.1	.0	.0	.7	
2<5	PCP	.2	.5	.2	.0	.1	.2	.2	.2	.0	.1	1.6	
	NO PCP	.3	.4	.2	.2	.0	.4	.1	.1	.0	.0	1.7	
	TOT %	.5	1.0	.3	.2	.1	.5	.3	.2	.0	.1	3.3	
5<10	PCP	.5	.5	.9	.6	.4	1.1	.5	.7	.0	.1	5.1	
	NO PCP	2.3	2.9	2.7	1.1	3.6	4.1	2.2	1.3	.0	1.7	21.7	
	TOT %	2.8	3.3	3.6	1.7	3.9	5.2	2.6	1.9	.0	1.8	26.9	
10+	PCP	.2	.4	.0	.2	.4	.4	.2	.2	.0	.1	2.2	
	NO PCP	4.3	5.1	5.4	6.1	13.7	17.0	8.8	3.2	.0	2.3	65.9	
	TOT %	4.6	5.5	5.4	6.3	14.1	17.4	9.0	3.4	.0	2.4	68.0	
	TOT OBS												823
	TOT PCT	8.0	10.5	9.6	8.2	18.3	23.1	12.3	5.7	.0	4.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.1	.2	.0	.0	.0	.0	.1	.0	.0		.5	
	TOT %	.1	.4	.0	.0	.0	.0	.1	.0	.0	.0	.6	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.1	.1	.0	.0	.0	.0	.0		.1	
	22+	.1	.0	.1	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.1	.0	.2	.1	.0	.0	.1	.0	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.1	.0	*	.1	.0	.0	.1	.0		.4	
	22+	.0	.0	.1	.0	.0	.0	.1	.0	.0		.2	
	TOT %	.0	.2	.1	*	.1	.0	.1	.1	.0	.0	.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.1	.3	.1	.0	.0	.1	.0	.1	.0		.6	
	11-21	.3	.5	.2	*	.1	.2	.0	.2	.0		1.5	
	22+	.2	.3	.1	.1	.0	.2	.3	*	.0		1.2	
	TOT %	.5	1.0	.3	.2	.1	.5	.3	.3	.0	.1	3.4	
5<10	0-3	.2	.2	.1	.2	.3	.0	1.1	.2	.0	1.8	4.2	
	4-10	.3	1.9	.8	.3	.9	1.4	.5	.8	.0		7.2	
	11-21	1.3	.6	1.9	.8	1.6	2.3	.8	.5	.0		9.7	
	22+	.7	.4	.7	.4	1.1	1.5	.5	.4	.0		5.7	
	TOT %	2.8	3.3	3.5	1.7	3.9	5.2	2.6	1.9	.0	1.8	26.8	
10+	0-3	.3	.4	.4	.3	.6	1.1	1.3	.3	.0	2.4	7.3	
	4-10	2.2	2.0	2.2	2.5	4.8	6.5	3.2	1.4	.0		24.9	
	11-21	1.6	2.3	2.0	2.1	7.9	7.9	3.8	1.2	.0		28.6	
	22+	.2	.3	.8	1.3	.8	1.9	.9	.2	.0		6.9	
	TOT %	4.6	5.5	5.4	6.3	14.1	17.4	9.0	3.4	.0	2.4	68.0	
	TOT OBS												824
	TOT PCT	8.1	10.5	9.6	8.2	18.2	23.1	12.3	5.7	.0	4.4	100.0	

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1887-1977

AREA 0025 AUCKLAND WEST
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.7	2.1	5.6	14.8	8.5	3.5	.0	.0	.0	35.2	64.8	142
06&09	2.1	.5	3.6	7.7	16.4	8.2	2.1	.5	1.5	.0	42.6	57.4	195
12&15	.0	.0	6.4	5.3	13.8	3.2	1.1	.0	.0	4.3	34.0	66.0	94
18&21	.6	.6	3.8	10.7	24.5	7.5	4.4	.0	.0	.0	52.2	47.8	159
TOT	5	3	22	45	105	43	17	1	3	4	248	342	590
PCT	.8	.5	3.7	7.6	17.8	7.3	2.9	.2	.5	.7	42.0	58.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.5	1.4	.5	1.4	29.1	67.3	220
06&09	1.5	.0	.7	3.0	21.8	73.1	271
12&15	.6	.6	.6	5.4	32.5	60.2	166
18&21	.4	.4	1.3	4.9	28.7	64.1	229
TOT	7	5	7	31	241	589	886
PCT	.8	.6	.8	3.5	27.4	66.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	4.6	10.8	27.7	61.5	130
06&09	2.1	6.4	15.0	28.3	56.7	187
12&15	.0	8.2	16.5	23.5	60.0	85
18&21	.6	5.1	17.9	36.5	45.5	156
TOT	5	33	84	166	308	558
PCT	.9	5.9	15.1	29.7	55.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP/ P	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.0	.0	.2	.0	1	.2
70/74	.0	.0	.0	.3	.9	1.8	2.1	2.3	49	7.5
65/69	.0	.0	.0	.6	3.5	10.2	12.0	13.3	273	41.6
60/64	.0	.0	.0	.9	6.7	14.5	12.5	9.9	292	44.5
55/59	.0	.0	.0	.0	1.4	1.8	1.4	1.4	39	5.9
50/54	.0	.0	.0	.0	.0	.0	.2	.2	2	.3
TOTAL	0	0	0	12	93	188	186	177	656	100.0
PCT	.0	.0	.0	1.8	14.5	28.4	28.4	27.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.0	.0	.0	.0	.0	.0	*	.0	.0
2.2	1.7	.6	.1	.7	.8	.3	.9	.0	.2
4.1	5.8	5.0	4.1	7.5	6.7	4.2	3.2	.0	1.1
1.2	1.8	3.5	4.3	8.8	14.8	6.9	1.7	.0	1.5
.3	.0	.2	*	1.9	2.0	.8	.1	.0	.6
.0	.0	.2	.0	.0	.0	.2	.0	.0	.0
7.9	9.3	9.4	8.5	19.0	24.3	12.3	5.9	.0	3.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	82	74	72	64	61	57	55	66.4	298
06&09	79	72	70	64	59	57	54	64.8	392
12&15	78	70	68	64	57	54	50	63.8	181
18&21	70	69	68	64	57	57	54	63.8	260
TOT	82	72	70	64	58	56	50	64.7	951

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.6	29.5	28.3	21.7	16.9	76	166
06&09	.0	1.5	12.5	27.2	29.5	29.5	81	224
12&15	.0	.0	7.8	27.9	27.1	37.2	84	129
18&21	.0	2.2	6.7	32.0	31.7	26.7	81	180
TOT	0	15	99	203	194	190	80	699

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1887-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.4	.0	.0	.0	2	.0	.4
11/13	.0	.0	.0	.2	.2	.0	.0	.0	2	.2	.2
9/10	.0	.0	.0	.7	.2	.0	.2	.0	6	.0	1.1
7/8	.0	.0	.0	.2	.4	.2	.0	.2	5	.0	.9
6	.0	.0	.0	.0	.2	.2	.0	.0	2	.0	.4
5	.0	.0	.2	.4	.7	.2	.0	.0	8	.0	1.4
4	.0	.0	.2	.9	1.9	.2	.0	.0	18	.0	3.2
3	.0	.0	.7	1.4	1.8	.0	.0	.0	22	.0	3.9
2	.0	.2	.9	4.6	2.1	.0	.0	.0	44	.2	7.5
1	.0	.2	.9	6.1	1.9	.0	.0	.0	52	.2	8.9
0	.2	.2	5.1	10.2	1.6	.0	.0	.0	98	.4	16.8
-1	.0	.0	6.2	5.8	1.2	.0	.0	.0	64	.0	11.2
-2	.0	.4	7.5	6.7	.2	.0	.0	.0	84	.0	14.7
-3	.0	.5	4.0	3.3	.5	.0	.0	.0	48	.2	8.2
-4	.0	.4	4.6	1.9	.0	.0	.0	.0	39	.0	6.8
-5	.4	.8	3.9	1.8	.0	.0	.0	.0	37	.2	6.3
-6	.2	.7	1.1	.2	.0	.0	.0	.0	12	.0	2.1
-7/-8	.0	1.8	1.9	.5	.0	.0	.0	.0	24	.0	4.2
-9/-10	.0	.4	.0	.0	.0	.0	.0	.0	2	.0	.4
-11/-13	.0	.2	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	4	30	200	255	79	4	1	1	570	7	563
PCT	.7	5.3	35.1	44.7	13.2	.7	.2	.2	100.0	1.2	98.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.2	.0	.0	.0	1.0
1-2	.0	1.3	.0	.0	.0	.0	1.3
3-4	.0	.0	1.1	.0	.0	.0	1.1
5-6	.0	.2	.9	.4	.0	.0	1.4
7	.0	.0	.7	1.0	.2	.0	1.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.1	2.9	1.8	.5	.0	7.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.7	.0	.0	.0	1.1
1-2	.0	1.5	.3	.0	.0	.0	1.8
3-4	.0	.2	1.2	.9	.0	.0	2.3
5-6	.2	.3	.4	.2	.0	.0	1.1
7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.4	.0	.2	.0	.9
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.4	3.1	1.3	.2	.2	7.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.4
1-2	.2	2.4	.6	.0	.0	.0	3.2
3-4	.0	.4	1.3	.0	.0	.0	1.6
5-6	.0	.0	.2	.0	.2	.0	.5
7	.0	.0	.0	.2	.0	.0	.2
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.2	.0	.2	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.9	2.3	1.2	.6	.0	7.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	1.6	.3	.0	.0	.0	2.0
3-4	.1	1.0	1.1	.3	.0	.0	2.4
5-6	.0	.2	1.0	.9	.1	.0	2.1
7	.0	.0	.2	.7	.0	.0	.9
8-9	.0	.0	.0	.3	.2	.0	.5
10-11	.0	.0	.0	.2	.2	.0	.4
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.0	2.8	2.6	.5	.0	9.0

PERIOD: (OVER-ALL) 1963-1977

APRIL

TABLE 18 (CONT)

AREA 0025 AUCKLAND WEST
36.0S 172.9E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.2	.2	.0	.0	.0	1.9	.0	2.4	1.3	.0	.0	.0	3.7
1-2	.0	2.1	2.6	.0	.0	.0	4.7	.3	3.8	3.7	.0	.0	.0	7.8
3-4	.3	2.8	3.6	.5	.0	.0	7.2	.0	1.9	5.3	.3	.0	.0	7.4
5-6	.0	.0	4.3	1.0	.0	.0	5.3	.0	.6	1.6	.1	.0	.0	2.3
7	.0	.0	.9	.5	.0	.0	1.4	.1	.0	.6	.5	.3	.0	1.3
8-9	.0	.2	.0	.2	.0	.0	.4	.0	.1	.0	.7	.2	.0	1.0
10-11	.0	.0	.6	.4	.0	.0	1.0	.0	.4	.0	.3	.0	.0	.7
12	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.4	.0	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	6.4	12.2	2.8	.0	.0	22.2	.4	9.2	12.6	2.2	1.0	.0	25.4

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.4	.6	.2	.0	.0	.0	1.2	.4	.1	.0	.0	.0	.0	.5	
1-2	.3	2.4	.7	.0	.0	.0	3.5	.0	1.2	.5	.0	.0	.0	1.6	
3-4	.0	1.2	1.8	.0	.0	.0	3.0	.0	.2	.6	.0	.0	.0	.9	
5-6	.0	.0	1.2	.6	.0	.0	1.8	.0	.2	1.1	.2	.0	.0	1.5	
7	.2	.0	.2	1.0	.2	.0	1.5	.0	.0	.1	.5	.0	.0	.6	
8-9	.0	.0	.4	.2	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.2	.4	.0	.6	.0	.0	.0	.0	.1	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	
23-25	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.9	4.3	4.5	2.2	.9	.0	12.8	.4	1.7	2.3	1.0	.1	.0	5.5	97.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.5	5.9	2.5	.0	.0	.0	13.9	
1-2	.8	16.2	8.8	.0	.0	.0	25.8	
3-4	.4	7.6	15.8	1.9	.0	.0	25.6	
5-6	.2	1.5	10.5	4.0	.2	.0	16.4	
7	.2	.0	2.7	4.4	.6	.0	8.0	
8-9	.0	.2	.8	1.7	.6	.2	3.6	
10-11	.0	.4	.8	1.3	1.1	.0	3.6	
12	.0	.2	.0	.6	.0	.0	.8	
13-16	.0	.0	.0	1.1	.2	.0	1.3	
17-19	.0	.0	.0	.0	.4	.0	.4	
20-22	.0	.0	.0	.0	.4	.0	.4	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								476
TOT PCT	7.1	31.9	42.0	14.9	3.8	.2	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	3.8	4.5	3.6	4.9	1.7	2.8	.8	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	127	6
6-7	.0	2.6	4.7	5.3	7.9	5.1	4.0	1.1	1.7	.6	.6	.2	.6	.0	.0	.0	.0	.0	.0	182	7
8-9	.0	.2	2.1	3.8	3.6	2.8	2.3	1.1	3.4	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	109	8
10-11	.0	.2	.2	1.9	3.6	.8	.8	.4	.9	.8	.2	.2	.0	.4	.0	.0	.0	.0	.0	54	10
12-13	.0	.0	.8	.2	1.1	.4	.6	.0	.4	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	21	9
>13	.0	.0	.0	.8	.2	.8	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	13	12
INDET	2.3	.2	1.1	.8	.4	.0	.2	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	28	3
TOTAL	15	37	71	86	115	61	58	19	64	8	6	3	4	2	0	0	1	0	0	535	7
PCT	2.8	7.0	13.4	16.2	21.7	11.5	10.9	3.6	8.3	1.5	1.1	.6	.8	.4	.0	.0	.2	.0	.0	100.0	

MAY

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1870-1977

AREA 0025 AUCKLAND WEST
35.8S 172.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	7.3	11.0	5.5	.0	.0	.0	.0	23.7	3.2	1.8	1.4	.0	.0		.0	69.9
NE	8.5	5.3	.0	.0	.0	.0	.0	13.8	2.0	1.6	1.6	.0	.0		.0	81.0
E	4.8	9.7	3.9	.0	.0	.0	.0	18.4	1.9	.0	1.9	.0	.0		.0	77.8
SE	3.1	6.2	3.7	.0	.0	.0	.0	13.0	2.8	.0	1.2	.0	.0		.0	83.0
S	2.9	2.1	1.5	.0	.0	.0	.0	6.6	2.1	.6	1.2	.0	.8		.0	88.8
SW	1.2	4.2	.0	.0	.0	.0	.0	5.4	6.1	.1	2.0	.0	.1		.0	86.1
W	1.4	8.7	.0	.0	.0	.0	.0	10.1	7.0	.0	1.0	.0	.7		.0	81.2
NW	4.3	4.7	1.7	.0	.0	.0	.0	10.7	5.6	.0	.4	.0	1.7		.0	81.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	9.1	.0	.0	.0	.0		.0	90.9
TOT PCT	3.3	5.6	1.5	.0	.0	.0	.0	10.4	4.4	.4	1.4	.0	.4		.0	83.1
TOT OBS:	734															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.2	7.6	1.4	.0	.0	.0	.0	15.2	3.8	.0	1.4	.0	.0		.0	79.6
06&09	3.4	4.9	1.5	.0	.0	.0	.0	9.7	1.9	.5	1.5	.0	.5		.5	85.4
12&15	4.1	3.5	1.2	.0	.0	.0	.0	8.8	4.1	1.2	1.8	.0	.0		.0	84.7
18&21	1.1	6.3	1.7	.0	.0	.0	.0	9.1	8.0	.6	.6	.0	1.1		.0	80.6
TOT PCT	3.8	5.6	1.4	.0	.0	.0	.0	10.9	4.9	.5	1.3	.0	.4		.1	82.5
TOT OBS:	762															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	3.0	2.7	.7	.2	.1		7.4	12.6	10.6	9.2	5.5	2.6	12.1	3.8	5.2	1.7
NE	1.4	2.7	2.7	1.2	.5	.0		8.4	13.3	9.8	6.7	8.3	11.4	7.0	2.9	7.0	12.1
E	.7	2.1	3.0	1.4	.2	.0		7.4	14.5	8.1	5.0	8.5	11.4	6.6	5.0	6.9	3.9
SE	.2	5.5	3.6	1.8	.2	.0		11.2	13.7	8.0	13.3	10.6	12.7	11.6	11.3	11.7	20.3
S	1.1	7.0	6.1	2.7	.5	.0		17.5	13.6	17.1	10.8	21.2	14.9	17.1	11.3	16.8	22.4
SW	1.0	8.3	7.6	4.8	.8	.2		22.7	16.0	24.0	30.8	19.8	16.7	16.9	44.4	23.3	17.7
W	.5	4.7	5.5	3.4	.4	.1		14.7	16.3	11.2	13.3	18.2	19.3	14.9	12.5	15.2	13.4
NW	.6	3.0	3.3	.6	.0	.1		7.7	13.2	7.2	10.8	6.7	7.5	10.8	4.4	7.8	5.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.0							3.0	.0	1.9	.0	1.2	3.5	2.9	5.0	6.7	3.4
TOT OBS	76	301	287	138	23	5	890		14.1	209	30	165	57	136	40	135	58
TOT PCT	9.2	36.3	34.6	16.6	2.8	.6		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.1	3.8	.8	.6	.1		7.4	12.6	10.5	4.7	10.2	4.1
NE	2.7	2.6	2.2	.8	.1		8.4	13.3	9.4	9.1	8.0	8.5
E	1.4	3.3	2.0	.7	.0		7.4	14.5	7.7	9.2	6.3	6.0
SE	2.3	3.2	2.5	1.2	.0		11.2	13.7	8.7	11.1	11.5	14.2
S	3.4	9.0	3.5	1.6	.0		17.5	13.6	16.3	19.6	15.8	18.1
SW	3.8	9.5	5.8	2.8	.8		22.7	16.0	26.6	19.0	23.2	21.6
W	2.0	6.5	5.9	1.9	.3		14.7	16.3	11.5	18.5	14.3	14.6
NW	1.4	3.9	2.2	*	.1		7.7	13.2	7.6	6.9	9.4	7.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.0						3.0	.0	1.7	1.8	3.4	5.7
TOT OBS	185	364	190	79	12	830		14.1	239	222	176	193
TOT PCT	22.3	43.9	22.9	9.5	1.4		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1870-1977

AREA 0025 AUCKLAND WEST
35.8S 172.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS) 11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.7	5.4	33.1	37.7	19.2	2.5	.4	15.1	100.0	239
06&09	1.8	8.6	33.8	37.4	15.3	3.2	.0	13.8	100.0	222
12&15	3.4	5.7	43.8	25.6	18.8	2.3	.6	13.4	100.0	176
18&21	5.7	4.7	36.3	35.8	13.0	3.1	1.6	13.8	100.0	193
TOT	25	51	301	287	138	23	5	14.1		830
PCT	3.0	6.1	36.3	34.6	16.6	2.8	.6		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.3	1.4	2.7	3.2		6.1
NE	1.1	.7	2.9	3.4		6.1
E	2.1	.9	1.2	1.2		4.3
SE	3.2	2.6	1.8	1.6		4.0
S	4.0	5.5	9.0	1.9		4.6
SW	4.1	5.7	13.0	2.7		5.0
W	2.2	3.6	6.5	1.2		4.7
NW	1.1	1.6	3.2	1.6		5.2
VAR	.0	.0	.0	.0		.0
CALM	.8	1.1	.4	.6		4.2
TOT OBS	90	110	193	89	476	4.9
TOT PCT	18.9	23.1	40.5	17.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.8	.0	.3	.2	1.5	1.1	.0	.0	.0	.4	3.4	
NE	.0	.0	.3	2.5	.9	.8	.2	.3	.0	.0	3.1	
E	.0	.0	.0	1.1	.6	.2	.0	.2	.0	.0	3.5	
SE	.0	.0	.2	.3	1.5	.3	.1	.0	.0	.2	6.7	
S	.0	.0	.4	1.4	3.2	2.7	.7	.0	.0	.0	12.0	
SW	.0	.2	.3	1.7	6.1	2.2	.6	.0	.4	.0	14.1	
W	.0	.0	.0	1.1	3.5	1.4	.2	.0	.0	.0	7.3	
NW	.1	.0	.0	1.2	1.8	.2	.0	.2	.0	.1	4.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.2	.0	.4	.0	.0	.0	.0	2.3	
TOT OBS	4	1	7	45	91	44	8	3	2	3	268	476
TOT PCT	.8	.2	1.5	9.5	19.1	9.2	1.7	.6	.4	.6	56.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.8	.8	.8	.8	.8	.8	.8	.8
* OR >5000	1.2	1.4	1.4	1.4	1.4	1.4	1.4	1.4
* OR >3500	2.8	3.3	3.3	3.3	3.3	3.3	3.3	3.3
* OR >2000	10.6	12.0	12.4	12.4	12.6	12.6	12.6	12.6
* OR >1000	23.8	29.5	30.5	30.9	31.1	31.1	31.1	31.1
* OR >600	30.3	38.0	40.7	41.1	41.3	41.3	41.3	41.5
* OR >300	31.1	39.0	41.9	42.5	42.7	42.7	42.7	42.9
* OR >150	31.3	39.2	42.1	42.7	42.9	42.9	42.9	43.1
* OR > 0	31.3	39.2	42.7	43.3	43.5	43.5	43.7	43.9
TOTAL	154	193	210	213	214	214	215	216

TOTAL NUMBER OF OBS: 492 PCT FREQ NH <5/8: 56.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
4.9	10.9	14.0	14.0	11.2	8.1	10.7	11.8	13.9	.7	534

MAY

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1870-1977

AREA 0025 AUCKLAND WEST
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.0	.0	*	.1	.0	.0	.0	.0	.0	.3	
	NO PCP	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.3	
	TOT %	.1	.1	.0	*	.1	.0	.1	.0	.0	.0	.5	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.1	.2	.0	.0	.1	.0	.0	.0	.0	.4	
	TOT %	.0	.1	.2	.0	.0	.1	.0	.0	.0	.0	.4	
1<2	PCP	.0	.0	.1	.0	.0	*	.2	.2	.0	.0	.5	
	NO PCP	.1	.1	.0	.0	.0	.0	.1	.1	.0	.0	.4	
	TOT %	.1	.1	.1	.0	.0	*	.3	.3	.0	.0	1.0	
2<5	PCP	.8	.7	.1	.0	.1	.0	.0	.3	.0	.0	2.0	
	NO PCP	.2	.0	.1	.2	.1	.2	.4	*	.0	.0	1.2	
	TOT %	1.0	.7	.3	.2	.2	.2	.4	.3	.0	.0	3.3	
5<10	PCP	.6	.3	.7	1.2	.3	.6	1.0	.3	.0	.0	5.2	
	NO PCP	1.2	1.9	1.6	2.1	2.9	6.2	2.9	1.6	.0	.8	21.3	
	TOT %	1.8	2.3	2.4	3.3	3.2	6.8	3.8	1.9	.0	.8	26.4	
10+	PCP	.2	.1	.3	.2	.6	.6	.3	.0	.0	.0	2.3	
	NO PCP	4.2	5.0	3.8	7.3	13.5	15.5	9.2	5.3	.0	2.2	66.1	
	TOT %	4.4	5.2	4.1	7.5	14.1	16.1	9.5	5.9	.0	2.2	68.4	
	TOT OBS												734
	TOT PCT	7.5	8.4	7.1	11.0	17.7	23.3	14.1	8.0	.0	3.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	
	4-10	.0	.1	.0	.0	.0	.0	.1	.0	.0		.3	
	11-21	.1	.0	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.1	.0	*	.1	.0	.1	.0	.0	.0	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.1	.2	.0	.0	.0	.0	.0	.0		.3	
	TOT %	.0	.1	.2	.0	.0	.1	.0	.0	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.1	.0	.0	.0	.1	.1	.0		.4	
	22+	.1	.1	.0	.0	.0	*	.2	.1	.0		.4	
	TOT %	.1	.1	.1	.0	.0	*	.3	.3	.0	.0	.9	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.4	.1	.0	.2	.1	.0	.0	.2	.0		.9	
	11-21	.5	.1	.0	.0	.0	*	.2	.2	.0		1.1	
	22+	.1	.4	.3	.0	.1	.1	.1	.0	.0		1.2	
	TOT %	1.0	.7	.3	.2	.2	.2	.4	.3	.0	.0	3.3	
5<10	0-3	.4	.7	.6	.1	.5	.1	.1	.3	.0	.8	3.8	
	4-10	.2	.9	.3	1.4	1.7	3.1	1.1	.9	.0		9.6	
	11-21	1.1	.5	.7	.8	.5	1.3	1.4	.6	.0		6.9	
	22+	.1	.1	.7	.9	.6	2.4	1.2	.2	.0		6.2	
	TOT %	1.8	2.3	2.3	3.3	3.3	6.9	3.8	1.9	.0	.8	26.6	
10+	0-3	.3	.4	.1	*	.6	.7	.3	.3	.0	2.2	4.9	
	4-10	2.1	1.4	1.5	3.9	4.9	5.6	3.8	1.8	.0		25.1	
	11-21	1.4	2.2	1.9	2.8	5.9	6.3	2.8	2.6	.0		25.9	
	22+	.6	1.2	.5	.7	2.7	3.5	2.5	.6	.0		12.3	
	TOT %	4.4	5.2	4.1	7.5	14.1	16.0	9.6	5.3	.0	2.2	68.2	
	TOT OBS												737
	TOT PCT	7.4	8.4	7.0	11.0	17.7	23.3	14.2	7.9	.0	3.0	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1870-1977

AREA 0025 AUCKLAND WEST
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.7	.7	2.1	9.8	17.5	9.8	.0	1.4	.0	.0	42.0	58.0	143
06&09	.0	.0	1.3	9.1	20.8	7.1	3.9	.6	.6	.6	44.2	55.8	154
12&15	2.0	.0	1.0	9.2	17.3	10.2	1.0	.0	1.0	.0	41.8	58.2	98
18&21	.9	.0	.9	12.1	15.5	9.5	1.7	.0	.0	1.7	42.2	57.8	116
TOT	4	1	7	51	92	46	9	3	2	3	218	293	511
PCT	.8	.2	1.4	10.0	18.0	9.0	1.8	.6	.4	.6	42.7	57.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.9	.0	.9	3.8	32.5	61.8	212
06&09	.5	1.0	1.0	5.3	22.6	69.7	208
12&15	.6	1.2	.6	2.4	26.5	68.8	170
18&21	.6	.0	1.1	1.7	24.6	72.0	175
TOT	5	4	7	26	204	519	765
PCT	.7	.5	.9	3.4	26.7	67.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.7	4.3	17.4	26.8	55.8	138
06&09	.0	1.4	16.4	34.2	49.3	146
12&15	2.1	4.2	13.7	29.5	56.8	95
18&21	1.8	2.7	16.8	26.5	56.6	113
TOT	5	15	80	145	267	492
PCT	1.0	3.0	16.3	29.5	54.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.2	.2	.2	.2	.2	5	.9
65/69	.0	.0	.0	.5	1.4	3.1	3.4	5.5	80	13.7
60/64	.0	.5	.2	1.4	8.4	15.3	14.9	12.7	311	53.4
55/59	.0	.2	.0	1.2	8.1	8.6	6.7	4.5	170	29.2
50/54	.0	.0	.5	.0	.9	.9	.2	.3	16	2.7
TOTAL	0	4	4	18	110	163	148	135	582	100.0
PCT	.0	.7	.7	3.1	18.9	28.0	25.4	23.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.3	.0	.0	.0	.2	*	.1	.2	.0	.0
2.6	1.3	.6	1.0	1.4	1.1	2.6	2.9	.0	.2
3.5	3.9	4.9	4.8	9.7	12.4	6.8	5.7	.0	1.7
.7	1.6	1.7	3.6	8.3	8.1	4.6	.2	.0	.3
.1	*	.1	.3	.3	1.1	.6	.0	.0	.2
7.2	6.9	7.3	9.8	19.9	22.7	14.7	9.0	.0	2.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	72	70	68	62	56	53	52	62.1	237
06&09	70	69	66	61	58	52	52	61.5	228
12&15	70	68	66	61	55	54	52	60.7	179
18&21	71	68	65	60	56	52	52	60.5	195
TOT	72	69	66	61	56	53	52	61.2	839

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	5.8	21.5	25.0	26.7	20.9	78	172
06&09	.0	2.4	17.1	32.9	29.3	18.3	79	164
12&15	.0	3.2	19.2	26.4	19.2	32.0	80	125
18&21	.0	5.7	16.3	27.7	28.4	22.0	79	141
TOT	0	26	112	169	158	137	79	602

MAY

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1870-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.2	.4	3	.0	.6
11/13	.0	.0	.2	.0	.2	2	.0	.4
9/10	.0	.0	.6	.2	.0	4	.0	.7
7/8	.0	.2	.2	.0	.2	3	.0	.6
6	.0	.0	.2	.4	.0	3	.0	.6
5	.0	.0	.7	.7	.0	8	.0	1.5
4	.0	.0	1.3	1.5	.0	15	.0	2.8
3	.0	.2	1.8	1.3	.2	16	.0	3.0
2	.0	.6	3.9	2.6	.2	39	.0	7.2
1	.0	.8	5.0	1.3	.0	39	.0	7.2
0	.0	1.9	9.1	3.0	.4	77	.2	14.1
-1	.0	3.7	5.6	1.9	.0	60	.4	10.8
-2	.0	4.8	5.8	.9	.0	60	.4	10.8
-3	.0	5.2	5.0	.2	.0	56	.2	10.2
-4	.7	5.0	4.6	.4	.0	58	.2	10.6
-5	1.1	3.2	3.5	.4	.0	44	.2	8.0
-6	.6	1.1	1.3	.0	.0	16	.0	3.0
-7/-8	.9	2.8	1.7	.0	.0	29	.0	5.4
-9/-10	.4	.4	.2	.0	.0	5	.0	.9
-11/-13	.2	.2	.0	.0	.0	2	.0	.4
TOTAL	21	160	270	80	8	539	8	531
PCT	3.9	29.7	50.1	14.8	1.5	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.4
1-2	.0	1.4	.8	.0	.0	.0	2.1
3-4	.2	.8	1.5	.0	.0	.0	2.5
5-6	.0	.2	.9	.2	.0	.0	1.3
7	.0	.0	.2	.2	.0	.0	.5
8-9	.0	.0	.2	.2	.0	.2	.6
10-11	.0	.2	.0	.6	.0	.0	.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.8	3.5	1.3	.0	.2	8.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.3	.0	.0	.0	.0	.8
1-2	.0	1.1	1.3	.0	.0	.0	2.4
3-4	.0	.5	1.2	.2	.0	.0	1.8
5-6	.0	.0	.8	.7	.0	.0	1.4
7	.2	.0	.1	.7	.0	.0	1.0
8-9	.0	.0	.1	.2	.0	.0	.3
10-11	.0	.1	.0	.1	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	1.9	3.5	2.0	.2	.0	8.1

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.2	.0	.0	.0	.4
1-2	.0	.8	1.0	.0	.0	.0	1.7
3-4	.0	.5	.6	.0	.0	.0	1.1
5-6	.0	.0	.9	.2	.0	.0	1.1
7	.0	.0	.4	.5	.2	.0	1.0
8-9	.0	.0	.0	.0	.2	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	3.1	.9	.4	.0	5.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	1.2	.1	.0	.0	.0	1.3
1-2	.0	2.4	.7	.0	.0	.0	3.1
3-4	.0	.8	.8	.0	.0	.0	1.9
5-6	.0	.5	.8	.0	.0	.0	1.2
7	.0	.1	.8	.0	.1	.0	.9
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	4.6	3.1	.2	.1	.0	8.1

PERIOD: (OVER-ALL) 1963-1977

MAY

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.4	.0	.0	.0	.0	1.3
1-2	.2	5.1	1.3	.0	.0	.0	6.6
3-4	.0	1.0	2.2	.2	.0	.0	3.4
5-6	.0	.0	2.9	.6	.2	.0	3.7
7	.0	.2	.4	2.5	.0	.0	3.1
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.5	.5	.2	.0	1.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	6.8	7.6	3.8	.5	.0	19.7

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.8	.0	.0	.0	.0	.9
1-2	.2	5.0	2.4	.0	.0	.0	7.6
3-4	.2	.9	2.8	.3	.0	.0	4.2
5-6	.0	.9	3.1	2.8	.0	.0	6.9
7	.0	.0	.8	2.5	.1	.0	3.3
8-9	.0	.0	.0	.5	.5	.2	1.0
10-11	.0	.0	.3	.7	.0	.2	1.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.7	.0	.0	.7
17-19	.0	.0	.0	.2	.2	.0	.5
20-22	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	7.5	9.4	7.7	.8	.5	26.5

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.2	2.9	.4	.0	.0	.0	3.6
3-4	.0	1.0	2.3	.2	.0	.0	3.5
5-6	.0	.5	.9	1.1	.0	.0	2.4
7	.0	.0	.4	1.6	.2	.0	2.4
8-9	.0	.0	.2	.7	.2	.0	1.0
10-11	.0	.0	.2	.7	.2	.0	1.1
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.5	.0	.0	.5
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.7	4.5	5.2	.6	.0	19.2

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	1.4	.1	.0	.0	.0	1.4	
3-4	.0	.8	.7	.0	.0	.0	1.5	
5-6	.0	.5	.8	.6	.0	.0	1.8	
7	.0	.0	.2	.2	.0	.0	.5	
8-9	.0	.0	.3	.0	.0	.0	.3	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.1	.0	.0	.1	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.7	2.3	.9	.0	.0	5.8	97.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.8	3.2	.2	.0	.0	.0	8.3	
1-2	.9	20.0	7.8	.0	.0	.0	28.7	
3-4	.3	6.0	12.0	.9	.0	.0	19.3	
5-6	.0	2.5	10.8	6.2	.2	.0	19.8	
7	.2	.2	3.4	8.3	.5	.0	12.6	
8-9	.0	.0	1.1	1.4	.7	.5	3.9	
10-11	.0	.2	1.1	2.8	.5	.2	4.8	
12	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	1.1	.0	.0	1.1	
17-19	.0	.0	.0	.5	.2	.0	.7	
20-22	.0	.0	.0	.0	.5	.0	.5	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.4	32.2	36.6	21.6	2.5	.7	100.0	435

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	3.2	6.2	7.9	6.0	1.3	1.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	128	3
6-7	.0	.4	1.5	3.6	4.9	2.3	3.4	1.5	1.1	1.1	.2	.0	.2	.0	.0	.0	.0	.0	.0	99	8
8-9	.0	.2	.9	3.2	3.4	3.6	3.2	1.9	1.7	.9	.6	.0	.4	.0	.0	.0	.0	.0	.0	96	9
10-11	.0	1.1	1.1	.4	1.5	1.7	.9	1.9	2.8	.9	.4	.4	.2	.0	.0	.0	.0	.0	.0	62	10
12-13	.0	.0	3.4	.6	1.7	.4	.9	.2	1.3	1.1	.4	.0	.2	.2	.0	.0	.0	.0	.0	49	9
>13	.0	.0	.0	.4	.4	.4	.6	.0	.6	.2	.9	.0	.0	.2	.0	.2	.0	.0	.0	19	16
INDET	1.9	.6	.2	.4	.4	.9	.9	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	5
TOTAL	12	26	62	78	86	50	52	26	36	20	12	2	5	2	0	1	0	0	0	470	8
PCT	2.6	5.5	13.2	16.6	18.3	10.6	11.1	5.5	7.7	4.3	2.6	.4	1.1	.4	.0	.2	.0	.0	.0	100.0	

JUNE

PERIOD: (PRIMARY) 1923-1977
(OVER-ALL) 1860-1977

AREA 0025 AUCKLAND WEST
35.7S 172.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST SNOW	NO SIG WEA
N	13.0	1.6	2.0	.0	.0	.0	.0	16.6	2.4	2.4	.0	.0	.0		.0	79.4
NE	8.0	6.9	6.9	.0	.0	.0	.0	21.9	2.8	.7	1.4	.0	.0		.0	74.0
E	8.9	11.9	5.6	.0	.0	.0	.0	26.4	1.5	.0	1.5	.0	.0		.0	70.6
SE	4.2	6.1	3.0	.0	.0	.0	.0	13.3	2.3	.0	1.5	.0	1.5		.0	81.4
S	5.0	5.5	8.7	.0	.0	.0	.0	19.2	4.4	.0	.9	.0	.0		.0	75.5
SW	1.0	10.1	2.3	.0	.0	.0	.0	13.2	7.0	.0	.7	.0	.7		.0	78.4
W	1.7	7.1	1.7	.0	.0	.0	.0	9.9	2.5	3.7	.0	.0	1.2		.0	82.8
NW	5.3	4.5	3.0	.0	.0	.0	.0	12.8	8.3	.4	.0	.0	1.1		.0	77.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	4.5	.0	.0	.0	.0	.0	4.5	.0	9.1	.0	.0	4.5		.0	81.8
TOT PCT	4.9	7.0	4.1	.0	.0	.0	.0	15.8	4.1	1.1	.7	.0	.7		.0	77.8
TOT OBS:	715															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST SNOW	NO SIG WEA
00&03	5.2	7.9	3.9	.0	.0	.0	.0	17.0	5.2	.0	.9	.0	1.3		.0	75.5
06&09	5.6	6.1	5.6	.0	.0	.0	.0	16.7	3.0	2.0	.5	.0	1.0		.0	76.8
12&15	4.6	7.8	2.6	.0	.0	.0	.0	15.0	5.2	.7	1.3	.0	.0		.0	77.8
18&21	3.2	6.5	3.2	.0	.0	.0	.6	13.6	2.6	1.9	.6	.0	.0		.0	81.8
TOT PCT	4.8	7.1	4.0	.0	.0	.0	.1	15.8	4.1	1.1	.8	.0	.7		.0	77.7
TOT OBS:	734															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	3.4	3.3	.8	.0	.0		8.0	13.0	7.1	8.1	8.8	7.4	5.7	11.3	10.8	7.5
NE	1.0	4.3	3.4	1.3	.0	.1		10.0	12.8	9.2	11.8	6.6	13.7	11.8	18.4	6.5	13.1
E	1.0	4.5	2.9	1.2	.0	.0		9.7	12.0	10.8	16.9	7.1	9.3	6.6	10.3	8.5	14.7
SE	.7	4.1	3.3	1.5	.1	.0		9.7	13.3	8.7	10.3	14.5	5.6	7.0	8.3	10.5	11.1
S	.8	4.8	6.9	3.0	.3	.1		16.0	15.2	14.0	13.2	17.4	18.0	20.4	9.6	17.3	13.5
SW	1.3	4.2	9.8	2.9	1.2	.1		19.5	16.7	21.0	21.3	19.8	18.0	22.4	20.3	16.0	13.9
W	.5	3.6	7.4	2.5	.6	.0		14.7	16.0	14.7	7.4	14.5	16.2	14.9	10.3	17.8	15.1
NW	.5	4.0	4.0	.8	.1	.0		9.4	12.9	12.3	8.1	8.6	8.8	6.8	5.8	8.8	9.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.0							3.0	.0	2.2	2.9	2.8	2.8	4.4	5.1	4.0	1.4
TOT OBS	73	262	327	113	19	3	797		14.0	231	34	149	71	114	39	100	69
TOT PCT	9.2	32.9	41.0	14.2	2.4	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.4	4.0	2.1	.5	.0		8.0	12.0	7.3	8.3	7.2	9.5
NE	2.4	4.5	2.5	.5	.1		10.0	12.8	9.5	8.9	13.4	9.0
E	2.9	4.1	2.1	.7	.0		9.7	12.0	11.6	7.9	7.3	10.9
SE	2.1	4.5	2.2	.9	.0		9.7	12.3	8.9	11.6	7.4	10.7
S	2.8	6.9	4.9	1.3	.1		16.0	15.2	13.9	17.6	17.6	15.8
SW	2.8	7.5	7.0	2.1	.4		19.5	16.7	21.0	19.2	21.9	15.2
W	2.2	5.4	5.7	1.4	.0		14.7	16.0	13.8	15.0	13.7	16.7
NW	1.8	4.8	2.3	.5	.0		9.4	12.9	11.8	8.7	6.5	9.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.0						3.0	.0	2.3	2.8	4.6	3.1
TOT OBS	169	391	229	63	5	797		14.0	265	216	195	163
TOT PCT	21.2	41.5	28.7	7.9	.6		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00603	2.3	4.2	34.0	39.2	17.4	2.6	.4	14.7	100.0	265
06609	2.8	5.6	32.4	43.1	13.4	2.3	.5	14.2	100.0	216
12615	4.6	9.8	27.5	44.6	12.4	1.3	.0	13.1	100.0	153
18621	3.1	6.7	36.8	38.0	11.7	3.1	.6	13.6	100.0	163
TOT	24	49	262	327	113	19	3	14.0		797
PCT	3.0	6.1	32.9	41.0	14.2	2.4	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.3	.9	3.6	3.9		6.0
NE	.6	.3	2.5	2.8		6.2
E	.9	.7	1.6	3.7		6.2
SE	3.8	1.6	2.6	2.3		4.3
S	4.5	4.4	5.3	3.7		4.6
SW	3.4	6.3	8.7	1.5		4.6
W	4.1	5.7	4.5	2.9		4.4
NW	1.0	3.3	2.5	2.3		5.0
VAR	.0	.0	.0	.0		.0
CALM	.9	.5	.7	.5		4.3
TOT OBS	88	101	136	101	426	4.9
TOT PCT	20.7	23.7	31.9	23.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 2499	3300 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.4	.2	.4	1.6	1.6	.4	.2	.0	.2	.0	4.9	
NE	.3	.0	.4	1.1	.8	.3	.4	.0	.3	.0	2.5	
E	.0	.0	1.1	.4	1.8	.6	.4	.0	.0	.0	2.6	
SE	.0	.0	.6	.9	1.3	.3	.2	.0	.0	.2	6.8	
S	.0	.0	.8	1.8	4.8	.4	.6	.0	.0	.0	10.0	
SW	.0	.0	.3	2.6	5.0	1.2	.1	.0	.0	.0	10.7	
W	.0	.0	.6	1.6	2.1	1.5	.0	.0	.0	.0	11.3	
NW	.2	.0	.1	.9	.7	.8	.2	.0	.0	.0	6.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.2	.0	.2	.0	.0	1.9	
TOT OBS	4	1	18	47	76	25	9	1	2	1	242	426
TOT PCT	.9	.2	4.2	11.0	17.8	5.9	2.1	.2	.5	.2	56.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >5000	* OR >0
* OR >6500	.5	.7	.7	.7	.7	.7	.7	.7
* OR >5000	.7	.9	.9	.9	.9	.9	.9	.9
* OR >3500	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0
* OR >2000	6.5	8.1	9.2	9.2	9.2	9.2	9.2	9.2
* OR >1000	16.6	24.2	27.0	27.0	27.0	27.0	27.0	27.0
* OR >600	23.6	33.7	37.6	37.9	37.9	37.9	37.9	37.9
* OR >300	24.0	36.0	41.6	42.0	42.0	42.0	42.0	42.0
* OR >150	24.2	36.3	41.8	42.3	42.3	42.3	42.3	42.3
* OR > 0	24.2	36.5	42.3	43.2	43.2	43.2	43.2	43.2
TOTAL	105	158	183	187	187	187	187	187

TOTAL NUMBER OF OBS: 433 PCT FREQ NH <5/8: 56.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
6.1	10.5	16.0	13.8	11.2	6.5	9.5	8.4	17.7 .4	475

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.0	.0	.1	.1	.0	.0	.0	.0	.3	
1<2	PCP	.2	.2	.1	.0	.0	.0	.0	.2	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.2	.2	.1	.0	.1	.0	.0	.2	.0	.0	.8	
2<5	PCP	.5	.3	.2	.1	.6	.2	.1	.3	.0	.0	2.4	
	NO PCP	.1	.3	.1	.0	.0	.8	.5	*	.0	.0	1.8	
	TOT %	.6	.6	.3	.1	.6	1.0	.6	.3	.0	.0	4.2	
5<10	PCP	.5	1.5	2.0	.5	1.6	1.9	.9	.6	.0	.1	9.6	
	NO PCP	2.8	4.8	3.1	2.1	2.7	5.2	3.1	2.7	.0	1.1	27.6	
	TOT %	3.3	6.3	5.1	2.7	4.3	7.1	4.0	3.3	.0	1.3	37.3	
10+	PCP	.2	.1	.1	.4	.8	.5	.3	.1	.0	.0	2.7	
	NO PCP	4.3	2.6	3.7	5.9	10.1	11.4	9.3	5.4	.0	1.8	54.5	
	TOT %	4.5	2.7	3.8	6.4	10.9	12.0	9.6	5.5	.0	1.8	57.2	
	TOT OBS												715
	TOT PCT	8.6	10.1	9.4	9.2	16.0	20.1	14.2	9.3	.0	3.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.1	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.1	.1	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.1	.0	.0	.1	.1	.0	.0	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.0	.0	.0	.0	.0	.1	.0		.3	
	11-21	.1	*	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.1	.3	.1	.1	.1	.0	.0	*	.0		.8	
	TOT %	.3	.4	.1	.1	.1	.0	.0	.2	.0	.0	1.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.1	.0	.0	.2	.1	.1	.0		.6	
	11-21	.3	.3	.2	.1	.0	.7	.2	.3	.0		2.2	
	22+	.2	.3	.0	.1	.6	.1	.2	*	.0		1.5	
	TOT %	.6	.6	.3	.1	.6	1.0	.6	.4	.0	.0	4.3	
5<10	0-3	.6	.9	.8	.2	.6	.9	.1	.5	.0	1.3	5.8	
	4-10	1.6	2.8	2.4	1.0	.3	1.3	1.2	1.3	.0		11.8	
	11-21	1.0	2.0	1.1	.6	1.8	2.8	1.5	.7	.0		11.5	
	22+	.1	.6	.8	.8	1.5	2.1	1.2	.9	.0		7.9	
	TOT %	3.3	6.3	5.1	2.6	4.3	7.0	4.0	3.3	.0	1.3	37.1	
10+	0-3	.0	.0	.1	.6	.3	.5	.3	*	.0	1.8	3.8	
	4-10	1.8	1.6	1.5	2.7	3.8	3.1	2.3	2.3	.0		19.0	
	11-21	2.3	1.0	1.9	2.6	5.2	6.7	5.1	3.0	.0		27.6	
	22+	.3	.1	.5	.6	1.4	1.7	1.7	.1	.0		6.5	
	TOT %	4.5	2.7	3.8	6.4	10.8	11.9	9.3	5.6	.0	1.8	56.9	
	TOT OBS												720
	TOT PCT	8.7	10.2	9.3	9.3	15.9	20.0	14.1	9.4	.0	3.1	100.0	

JUNE

PERIOD: (PRIMARY) 1923-1977
(OVER-ALL) 1860-1977

AREA 0025 AUCKLAND WEST
36.7S 172.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	5.4	10.1	18.2	4.1	.7	.0	.7	.7	39.9	60.1	148
06&09	.8	.0	3.8	12.3	16.2	6.2	2.3	.8	.8	.0	43.1	56.9	130
12&15	2.4	.0	2.4	11.9	15.5	7.1	4.8	.0	.0	.0	44.0	56.0	84
18&21	1.0	1.0	3.1	6.2	16.5	7.2	1.0	.0	.0	.0	36.1	63.9	97
TOT	4	1	18	47	77	27	9	1	2	1	167	272	459
PCT	.9	.2	3.9	10.2	16.8	5.9	2.0	.2	.4	.2	40.7	59.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.0	1.3	3.9	36.5	58.3	230
06&09	.0	1.0	1.0	5.0	33.5	59.5	200
12&15	.0	.0	1.3	5.2	42.9	50.6	154
18&21	.6	.0	1.3	3.2	38.7	56.1	155
TOT	1	2	9	32	277	418	739
PCT	.1	.3	1.2	4.3	37.5	56.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <30VSBY	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	5.7	17.7	24.1	58.2	141
06&09	.8	4.9	22.0	23.6	54.5	123
12&15	2.6	5.2	20.8	27.3	51.9	77
18&21	1.1	5.4	15.2	22.8	62.0	92
TOT	4	23	82	105	246	433
PCT	.9	5.3	18.9	24.2	56.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.0	.6	.2	.6	7	1.4
60/64	.0	.2	.0	.6	6.9	8.3	10.7	10.1	186	36.8
55/59	.0	.0	.4	2.2	9.7	16.4	15.0	8.3	263	52.0
50/54	.0	.0	.2	.0	2.2	1.4	4.3	.6	44	8.7
45/49	.0	.0	.0	.0	.2	.2	.6	.2	6	1.2
TOTAL	0	1	3	14	96	136	156	100	506	100.0
PCT	.0	.2	.6	2.8	19.0	26.9	30.8	19.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.3	.2	.0	.0	.0	.2	.2	.4	.0	.0
5.7	2.5	3.7	1.2	5.4	4.1	7.4	6.3	.0	.6
1.7	1.7	4.3	7.3	9.7	13.7	8.7	3.3	.0	1.6
.2	.3	1.0	1.4	3.0	1.5	1.0	.2	.0	.0
.0	.2	.0	.0	.3	.5	.2	.0	.0	.0
8.0	4.9	9.0	9.9	18.4	20.0	17.5	10.1	.0	2.2

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	70	65	64	60	54	51	49	59.7	282
06&09	64	63	63	59	54	52	51	58.6	215
12&15	68	65	63	58	52	48	47	58.0	161
18&21	64	63	63	58	53	50	48	57.9	166
TOT	70	65	63	59	53	50	47	58.7	805

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	2.9	26.4	32.2	19.0	19.5	77	174
06&09	.0	2.9	18.8	28.3	30.4	19.6	79	138
12&15	.0	5.2	7.3	21.9	42.7	22.9	81	96
18&21	.0	4.7	17.9	19.8	39.6	17.9	80	106
TOT	0	19	98	137	158	102	79	514

JUNE

PERIOD: (PRIMARY) 1923-1977
(OVER-ALL) 1860-1977

AREA 0025 AUCKLAND WEST
35.7S 172.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.3	.0	2	.0	.3
11/13	.0	.0	.0	.0	.2	.0	1	.0	.2
9/10	.0	.0	.0	.0	.2	.0	1	.0	.2
7/8	.0	.0	.2	.0	.7	.0	5	.0	.9
6	.0	.0	.0	.0	.2	.2	2	.0	.3
5	.0	.0	.2	.2	1.2	.0	9	.0	1.6
4	.0	.0	.0	.5	1.6	.2	13	.0	2.3
3	.0	.0	.0	.7	3.3	.2	21	.0	3.7
2	.0	.0	.0	2.8	4.7	.0	43	.0	7.5
1	.0	.0	.0	5.7	4.0	.0	56	.0	9.8
0	.0	.0	.7	5.7	5.9	.2	72	.2	12.4
-1	.0	.0	1.0	5.7	4.4	.0	64	.3	10.8
-2	.0	.2	2.4	6.8	4.9	.2	83	.2	14.3
-3	.0	.0	2.4	5.9	1.4	.0	56	.2	9.6
-4	.0	.0	2.8	3.3	1.2	.0	42	.0	7.3
-5	.0	.3	2.6	2.1	.2	.0	30	.0	5.2
-6	.0	.0	1.9	1.6	.9	.0	25	.0	4.4
-7/-8	.0	.9	2.4	.7	.0	.0	23	.0	4.0
-9/-10	.2	.8	1.0	.3	.0	.0	14	.0	2.4
-11/-13	.2	.7	.2	.7	.0	.0	10	.0	1.7
-14/-16	.2	.0	.2	.0	.0	.0	2	.0	.3
TOTAL	3		104		202		5		569
PCT	.5	3.0	18.1	42.3	35.2	.9	574 100.0	.9	99.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.9	.0	.0	.0	.0	1.9
1-2	.0	1.3	.9	.0	.0	.0	2.2
3-4	.0	.3	1.4	.0	.0	.0	1.6
5-6	.0	.0	2.7	.3	.0	.0	3.0
7	.0	.0	.0	.5	.0	.0	.5
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.5	5.0	1.0	.0	.0	9.5

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	.6	.3	.0	.0	.0	.9
3-4	.0	.0	.7	.3	.0	.0	.9
5-6	.0	.0	1.6	.0	.0	.0	1.6
7	.0	.0	.1	.4	.0	.0	.5
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.2	2.6	1.1	.0	.3	5.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.2	.0	.0	.0	.0	.5
1-2	.0	.7	.5	.0	.0	.0	1.2
3-4	.0	.0	1.8	.0	.0	.0	1.8
5-6	.0	.0	.9	.3	.0	.0	1.2
7	.0	.0	.5	.7	.0	.0	1.2
8-9	.0	.0	.0	.5	.0	.0	.5
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.5	.0	.0	.5
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	.9	3.6	2.1	.0	.0	6.9

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.8	.0	.0	.0	.0	1.6
1-2	.1	1.8	.9	.0	.0	.0	2.8
3-4	.0	1.1	2.1	.0	.0	.0	3.2
5-6	.0	.0	1.0	.3	.0	.0	1.3
7	.0	.0	.3	.3	.0	.0	.6
8-9	.0	.0	.5	.3	.0	.0	.9
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	3.7	4.8	1.0	.3	.0	10.7

PERIOD: (OVER-ALL) 1962-1977 JUNE AREA 0025 AUCKLAND WEST 35.7S 172.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.6	.0	.0	.0	.0	1.6	.0	.1	.0	.0	.0	.0	.1
1-2	.7	3.0	1.0	.0	.0	.0	4.7	.0	2.2	1.6	.0	.0	.0	3.8
3-4	.0	.7	2.0	.3	.0	.0	3.0	.0	1.4	4.4	.0	.0	.0	5.8
5-6	.0	.3	2.6	.3	.0	.0	3.2	.0	.5	4.2	.6	.1	.0	5.5
7	.0	.0	1.5	.7	.2	.0	2.4	.0	.0	2.0	.5	.3	.0	2.8
8-9	.0	.0	.2	.5	.0	.0	.7	.0	.3	.6	.5	.1	.0	1.6
10-11	.0	.0	.0	.5	.0	.0	.5	.0	.1	.0	.1	.3	.0	.4
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.1	.3	.0	.3
13-16	.0	.0	.0	1.0	.3	.0	1.3	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.6	7.3	3.4	.5	.3	17.8	.0	4.7	12.7	1.8	1.2	.3	20.7

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.3	.6	.0	.0	.0	.0	.9	.0	.1	.0	.0	.0	.0	.1	
1-2	.0	2.2	.9	.0	.0	.0	3.2	.0	2.7	1.5	.0	.0	.0	4.2	
3-4	.2	1.2	1.8	.3	.0	.0	3.5	.1	.7	2.0	.0	.0	.0	2.7	
5-6	.0	.0	3.5	.8	.7	.0	5.0	.0	.3	1.6	.2	.0	.0	2.0	
7	.0	.0	1.3	.9	.0	.0	2.2	.0	.0	.7	.5	.0	.0	1.2	
8-9	.0	.0	.3	.3	.4	.0	.9	.0	.0	.0	.1	.0	.0	.1	
10-11	.0	.2	.0	.3	.0	.0	.5	.0	.0	.3	.0	.0	.0	.3	
12	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.2	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.1	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	4.3	8.0	2.8	1.1	.0	16.7	.1	3.7	6.0	.8	.0	.0	10.6	98.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.5	5.9	.0	.0	.0	.0	9.5	
1-2	.8	14.6	7.6	.0	.0	.0	23.0	
3-4	.3	5.4	15.9	.8	.0	.0	22.4	
5-6	.0	1.1	18.1	2.7	.8	.0	22.7	
7	.0	.0	6.2	4.6	.5	.0	11.4	
8-9	.0	.3	1.6	2.7	.5	.0	5.1	
10-11	.0	.3	.3	1.1	.3	.0	1.9	
12	.0	.0	.0	1.1	.3	.0	1.4	
13-16	.0	.0	.3	1.1	.5	.0	1.9	
17-19	.0	.0	.0	.0	.0	.3	.3	
20-22	.0	.0	.0	.0	.0	.3	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.3	.3	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								370
TOT PCT	4.6	27.6	50.0	14.1	3.0	.8	100.0	

PERIOD: (OVER-ALL) 1949-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	1.2	4.7	5.5	4.0	2.5	1.0	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80	6
6-7	.2	.0	2.2	6.2	6.5	3.5	5.2	2.0	1.0	1.5	.0	.2	.7	.2	.0	.0	.0	.0	.0	119	9
8-9	.0	.7	2.5	4.2	4.7	3.2	2.0	1.5	2.2	.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0	91	8
10-11	.0	.7	1.2	1.0	2.0	1.7	2.7	.0	1.5	1.2	.5	.0	.2	.2	.0	.0	.0	.0	.0	58	10
12-13	.0	.0	.5	.2	.5	.7	1.7	.2	.7	.2	.0	.2	.2	.0	.0	.0	.0	.0	.0	22	11
>13	.0	.0	.0	.5	.2	.5	.2	.2	.5	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	12	14
INDET	.5	.2	.7	1.0	1.0	1.0	.2	.0	.0	.2	.2	.5	.0	.0	.0	.0	.0	.0	.0	24	9
TOTAL	3	12	48	79	76	53	58	26	15	7	4	8	3	0	0	0	0	0	0	401	8
PCT	.7	3.0	12.0	18.7	19.0	13.2	13.2	4.5	6.5	3.7	1.7	1.0	2.0	.7	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1873-1977

AREA 0025 AUCKLAND WEST
35.85 172.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	ND SIG WEA
N	13.2	4.3	3.2	.0	.0	.0	.0	19.5	10.9	3.6	.0	.0	.0		.0	67.7
NE	7.8	1.6	4.9	.0	.0	.0	.0	14.4	9.8	1.6	1.6	.0	.0		.0	76.5
E	5.0	5.0	1.8	.0	.0	.0	.0	11.9	6.4	1.8	.0	.0	.0		.0	81.7
SE	3.0	4.9	1.5	.0	.0	.0	.8	10.2	1.9	.0	.0	.0	.4		.0	87.5
S	.9	2.3	.0	.0	.0	.0	.5	3.6	4.3	.0	1.8	.0	.7		.0	89.5
SW	2.4	6.8	.3	.0	.0	.0	.1	9.6	10.2	.3	2.3	.0	.0		.0	77.7
W	5.5	4.6	1.8	.0	.0	.0	.5	12.4	10.1	2.5	.7	.0	.7		.0	74.2
NW	5.7	9.1	4.4	.0	.0	.0	.0	17.6	8.1	.0	4.1	.0	.0		.0	70.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	5.9	.0	.0	.0	.0	5.9	5.9	.0	5.9	.0	.0		.0	82.4
TOT PCT	4.5	4.9	1.9	.0	.0	.0	.3	11.3	7.7	1.1	1.6	.0	.3		.0	78.5
TOT OBS:	752															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	ND SIG WEA
00&03	3.4	6.0	1.3	.0	.0	.0	.0	10.8	5.6	.0	.9	.0	.4		.0	82.3
06&09	6.0	8.0	2.0	.0	.0	.0	.5	15.9	9.0	1.0	1.5	.0	.5		.0	72.1
12&15	4.1	3.0	1.8	.0	.0	.0	.6	8.9	7.7	2.4	2.4	.0	.0		.0	80.5
18&21	4.5	1.7	2.2	.0	.0	.0	.0	8.4	7.9	1.1	2.2	.0	.0		.0	80.4
TOT PCT	4.5	4.9	1.8	.0	.0	.0	.3	11.1	7.4	1.0	1.7	.0	.3		.0	78.9
TOT OBS:	781															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.3	2.2	2.6	1.3	.3	.2		7.0	16.7	6.7	4.8	6.1	12.5	8.6	6.1	6.4	3.4
NE	.3	2.9	4.0	1.3	.5	.0		9.0	15.5	11.2	16.7	5.8	4.0	7.4	3.0	11.2	11.8
E	.5	3.6	1.9	.7	.3	.0		7.0	12.3	8.3	6.0	8.2	3.7	7.7	6.1	4.4	7.8
SE	.7	2.5	3.5	1.7	.5	.0		8.8	15.7	8.0	6.5	6.6	12.1	11.5	6.1	10.6	4.9
S	1.5	5.3	6.8	1.7	.1	.0		15.4	12.5	15.0	22.0	15.8	15.1	14.9	22.0	11.0	19.6
SW	.6	9.7	10.4	4.1	1.4	.2		22.4	16.8	21.9	20.8	23.0	19.1	19.2	23.5	23.0	29.4
W	.8	6.7	7.1	2.9	1.0	.1		18.6	15.5	17.1	13.7	16.8	23.9	18.7	21.2	23.4	12.3
NW	.7	3.1	3.6	1.9	.5	.0		9.8	15.3	10.0	7.1	15.6	8.1	10.1	9.1	4.3	10.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.1							2.1	.0	1.8	2.4	.0	1.3	2.1	3.0	5.7	.0
TOT OBS	64	276	344	135	38	5	862		14.9	226	42	155	68	146	33	141	51
TOT PCT	7.4	32.0	39.9	15.7	4.4	.6		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	.8	3.6	1.4	1.0	.2		7.0	10.7	6.4	8.1	8.1	5.6
NE	1.5	3.3	3.4	.6	.2		9.0	13.5	12.0	5.3	6.6	11.3
E	1.9	3.4	1.1	.5	.0		7.0	12.3	7.9	6.8	7.4	5.3
SE	1.8	3.0	2.7	1.3	.0		8.8	15.7	7.7	8.3	10.5	9.1
S	3.5	7.5	3.8	.6	.0		15.4	12.5	16.1	15.6	16.2	13.3
SW	3.0	9.5	6.7	2.5	.7		22.4	16.8	21.7	23.2	20.0	24.7
W	3.3	7.9	5.4	1.6	.5		18.6	15.5	16.6	18.9	19.1	20.4
NW	1.7	3.9	3.2	1.1	.0		9.8	15.3	9.5	13.3	9.9	6.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.1						2.1	.0	1.9	.4	2.2	4.2
TOT OBS	170	363	237	78	14	862		14.9	268	223	179	192
TOT PCT	19.7	42.1	27.5	9.0	1.6		100.0		100.0	100.0	100.0	100.0

JULY

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1873-1977

AREA 0025 AUCKLAND WEST
35.8S 172.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.9	2.2	30.6	42.2	18.3	4.5	.4	15.6	100.0	268
06&09	.4	4.9	35.4	35.4	16.6	6.3	.9	15.4	100.0	223
12&15	2.2	9.5	30.7	40.8	13.4	3.4	.0	13.7	100.0	179
18&21	4.2	6.3	31.3	41.1	13.0	3.1	1.0	14.3	100.0	192
TOT	18	46	276	344	135	38	5	14.9		862
PCT	2.1	5.3	32.0	39.9	15.7	4.4	.6		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.9	1.3	2.2	3.4		5.9
NE	2.6	1.1	2.6	2.8		4.8
E	1.3	1.6	2.4	1.4		5.0
SE	3.0	1.8	1.7	1.3		3.7
S	5.0	2.3	3.3	2.2		4.2
SW	3.1	8.1	9.2	2.1		4.6
W	4.8	6.4	7.6	2.4		4.3
NW	.6	2.6	3.7	2.6		5.7
VAR	.0	.0	.0	.0		.0
CALM	1.2	.6	.0	.4		3.0
TOT OBS	111	128	162	93	494	4.6
TOT PCT	22.5	25.9	32.8	18.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.2	.2	1.3	1.5	.6	.5	.0	.0	.0	3.6	
NE	.1	.1	.4	1.5	1.8	.7	.1	.0	.2	.0	4.5	
E	.2	.2	.4	.4	1.6	.4	.0	.0	.0	.0	3.6	
SE	.2	.0	.2	.9	.7	.2	.0	.0	.0	.0	5.7	
S	.0	.0	.0	1.2	2.6	.9	.2	.0	.0	.0	7.9	
SW	.0	.2	.1	2.2	3.8	1.7	.0	.2	.0	.0	14.3	
W	.0	.2	.3	3.0	3.1	1.3	.0	.0	.4	.0	13.0	
NW	.5	.2	.8	.9	1.3	.8	.3	.0	.0	.0	5.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	1.8	
TOT OBS	5	5	13	54	81	32	5	1	3	0	295	494
TOT PCT	1.0	1.0	2.6	10.9	16.4	6.5	1.0	.2	.6	.0	59.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.4	.6	.6	.6	.6	.6	.6	.6
* OR >5000	.6	.8	.8	.8	.8	.8	.8	.8
* OR >3500	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8
* OR >2000	6.1	8.3	8.5	8.5	8.5	8.5	8.5	8.5
* OR >1000	16.4	23.1	24.1	24.3	24.3	24.3	24.5	24.5
* OR >600	23.3	32.2	34.6	34.8	35.4	35.4	35.6	35.6
* OR >300	23.9	34.6	37.4	37.5	38.1	38.1	38.3	38.3
* OR >150	24.1	35.4	38.3	38.5	39.1	39.1	39.3	39.3
* OR > 0	24.1	35.6	38.9	39.3	40.1	40.1	40.3	40.3
TOTAL	122	180	197	199	203	203	204	204

TOTAL NUMBER OF OBS: 506 PCT FREQ NH <5/8: 59.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
6.6	12.3	14.7	15.6	9.9	9.6	7.1	9.8	13.9	.9	563

JULY

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1873-1977

AREA 0025 AUCKLAND WEST
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.3	
1/2<1	PCP	.1	.3	.3	.0	.0	.0	.0	.1	.0	.0	.8	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.1	.3	.3	.0	.0	.1	.0	.1	.0	.0	.9	
1<2	PCP	.0	.1	.0	.1	.0	*	.1	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	TOT %	.0	.1	.0	.1	.0	*	.1	.1	.0	.0	.5	
2<5	PCP	.7	.2	.1	.1	.0	.0	.3	.4	.0	.0	1.9	
	NO PCP	.5	*	.0	.1	.1	.1	.1	.6	.0	.0	1.6	
	TOT %	1.2	.2	.1	.3	.1	.1	.4	1.0	.0	.0	3.5	
5<10	PCP	.5	.6	.3	.5	.3	1.4	1.1	1.1	.0	.1	5.9	
	NO PCP	1.0	1.4	1.8	2.6	3.4	3.7	3.9	2.4	.0	.3	20.6	
	TOT %	1.5	1.9	2.1	3.1	3.7	5.1	5.0	3.6	.0	.4	26.4	
10+	PCP	.1	.0	.0	.1	.3	.7	.8	*	.0	.0	2.0	
	NO PCP	4.4	5.5	4.5	5.2	10.4	17.0	12.4	5.0	.0	1.9	66.4	
	TOT %	4.5	5.5	4.5	5.3	10.7	17.7	13.2	5.0	.0	1.9	68.4	
	TOT OBS												749
	TOT PCT	7.9	8.1	7.1	8.8	14.7	23.0	18.8	9.9	.0	2.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.3	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	22+	.1	.3	.3	.0	.0	.1	.0	.0	.0		.8	
	TOT %	.1	.3	.3	.0	.0	.1	.0	.1	.0	.0	.9	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.3	.0	*	.1	.0	.0		.4	
	TOT %	.0	.1	.0	.3	.0	*	.1	.1	.0	.0	.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.0	.1	.0	.1	.1	.1	.0		.7	
	11-21	.3	.0	.1	.0	.1	.0	.1	.5	.0		1.2	
	22+	.8	.1	.0	.1	.0	.1	.3	.3	.0		1.7	
	TOT %	1.2	.2	.1	.3	.1	.2	.5	1.0	.0	.0	3.6	
5<10	0-3	.0	.0	.1	.3	.4	.1	.3	.0	.0	.4	1.6	
	4-10	.3	.2	.8	.6	1.3	1.2	1.1	1.1	.0		6.9	
	11-21	.3	1.1	.8	1.2	1.4	2.1	1.7	1.3	.0		10.0	
	22+	.0	.6	.4	1.0	.5	1.7	1.9	1.1	.0		7.8	
	TOT %	1.5	1.9	2.1	3.1	3.7	5.1	5.0	3.6	.0	.4	26.3	
10+	0-3	.4	.3	.1	.3	1.1	.4	.5	.6	.0	1.9	5.6	
	4-10	1.6	2.3	2.9	1.3	3.9	4.8	5.4	2.0	.0		24.1	
	11-21	2.1	2.3	1.2	2.7	4.7	8.1	5.4	1.6	.0		28.1	
	22+	.3	.7	.2	.9	1.0	4.3	2.0	.9	.0		10.3	
	TOT %	4.5	5.5	4.5	5.3	10.6	17.6	13.3	5.0	.0	1.9	68.2	
	TOT OBS												752
	TOT PCT	7.9	8.1	7.1	8.9	14.6	23.0	18.9	9.8	.0	2.3	100.0	

JULY

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1873-1977

AREA 0025 AUCKLAND WEST
36.85 172.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.6	1.8	13.1	17.9	9.5	1.8	.6	.6	.0	45.8	54.2	168
06&09	1.3	2.0	6.0	13.3	13.3	8.0	.7	.0	.0	.0	44.7	55.3	150
12&15	2.0	.0	2.0	5.0	9.9	3.0	.0	.0	1.0	.0	22.8	77.2	101
18&21	.9	.9	.0	7.8	19.0	2.6	.9	.0	.9	.0	32.8	67.2	116
TOT	5	5	14	56	82	34	5	1	3	0	205	330	535
PCT	.9	.9	2.6	10.5	15.3	6.4	.9	.2	.6	.0	38.3	61.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	1.3	.4	2.2	23.8	72.3	231
06&09	.5	1.0	.5	5.9	31.0	61.1	203
12&15	.0	.6	1.8	3.0	26.8	67.9	168
18&21	.6	1.1	.0	3.4	26.3	68.7	179
TOT	2	8	5	28	210	528	781
PCT	.3	1.0	.6	3.6	26.9	67.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	3.6	16.4	30.3	53.3	165
06&09	1.4	11.2	28.7	19.6	51.7	143
12&15	2.2	4.5	11.2	14.6	74.2	89
18&21	.9	1.8	11.0	23.9	65.1	109
TOT	5	28	90	117	299	506
PCT	1.0	5.5	17.8	23.1	59.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.2	.0	.0	.0	.0	1	.2
60/64	.0	.2	.5	.6	2.9	5.2	4.6	4.9	119	18.9
55/59	.0	.0	.3	1.4	8.6	20.2	17.9	12.1	381	60.5
50/54	.0	.0	.3	.5	3.7	4.3	5.4	4.3	116	18.4
45/49	.0	.0	.0	.0	.2	.6	.3	.6	11	1.7
40/44	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
35/39	.0	.0	.0	.0	.0	.0	.2	.0	1	.2
TOTAL	0	1	7	17	97	191	179	138	630	100.0
PCT	.0	.2	1.1	2.7	15.4	30.3	28.4	21.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.0	.0	.0	.0	.0	.0	*	.0	.0
3.4	3.0	.6	.6	.6	1.5	4.4	4.4	.0	.5
3.4	5.5	4.4	6.0	10.4	14.5	10.8	4.4	.0	1.1
.2	1.4	2.0	1.8	3.7	4.9	2.7	.9	.0	.8
.0	.2	.2	.2	.7	.2	.0	.0	.0	.2
.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	*	.1	.0	.0	.0
7.2	10.1	7.1	8.6	15.6	21.2	18.0	9.7	.0	2.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	68	64	63	58	52	49	37	57.7	273
06&09	63	62	61	57	52	39	37	56.8	217
12&15	65	61	60	56	48	44	42	55.3	186
18&21	63	62	61	56	49	44	43	56.2	193
TOT	68	63	62	57	50	44	37	56.6	869

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	5.2	18.6	32.5	26.3	17.5	78	194
06&09	.0	4.7	17.2	30.2	27.2	20.7	79	169
12&15	.0	1.4	12.0	30.3	32.4	23.9	82	142
18&21	.0	3.5	11.2	25.2	30.1	30.1	82	143
TOT	0	25	98	193	186	146	80	648

JULY

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1873-1977

AREA 0025 AUCKLAND WEST
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
11/13	.0	.0	.0	.0	.4	.5	.2	6	.0	1.1
9/10	.0	.0	.0	.2	.4	.0	.0	3	.0	.5
7/8	.0	.0	.0	.2	.2	.0	.0	2	.0	.4
6	.0	.0	.0	.0	.0	.7	.0	4	.0	.7
5	.0	.0	.0	.4	.0	.7	.2	7	.0	1.3
4	.0	.0	.0	.2	.7	.9	.0	10	.0	1.8
3	.0	.0	.0	.4	1.3	2.0	.0	20	.0	3.6
2	.0	.0	.2	.7	3.3	2.5	.0	37	.2	6.5
1	.0	.0	.0	.7	5.1	4.5	.0	57	.2	10.1
0	.0	.0	.4	2.4	6.5	2.4	.0	64	.4	11.2
-1	.0	.0	.2	1.8	7.1	.9	.0	55	.4	9.6
-2	.0	.2	.4	4.0	7.6	.9	.0	72	.0	13.0
-3	.0	.0	.4	5.6	5.1	.2	.0	62	.2	11.1
-4	.0	.2	.4	4.7	3.3	.0	.0	47	.5	8.0
-5	.0	1.1	.5	5.1	1.4	.0	.0	45	.0	8.2
-6	.2	.4	.5	3.4	.4	.0	.0	27	.0	4.9
-7/-8	.4	.5	1.1	1.6	.5	.0	.0	23	.4	3.8
-9/-10	.2	.0	.7	.7	.0	.0	.0	9	.0	1.6
-11/-13	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	4	14	26	177	238	91	2	552	12	540
PCT	.7	2.5	4.7	32.1	43.1	16.5	.4	100.0	2.2	97.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.4
1-2	.0	1.9	1.1	.0	.0	.0	3.0
3-4	.0	.9	1.7	.0	.0	.0	2.6
5-6	.0	.0	1.3	.2	.0	.0	1.5
7	.0	.0	.0	.4	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.2	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.0	4.3	1.1	.0	.0	8.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.3	.0	.0	.0	.0	.6
1-2	.0	1.7	.4	.0	.0	.0	2.2
3-4	.2	.9	1.1	.0	.0	.0	2.2
5-6	.0	.0	1.8	.4	.0	.0	2.2
7	.0	.0	1.2	1.6	.0	.0	2.9
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.5	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.9	4.8	2.5	.0	.0	10.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	3.1	.2	.0	.0	.0	3.3
3-4	.0	.7	.9	.2	.0	.0	1.8
5-6	.0	.0	.7	.2	.0	.0	.9
7	.0	.0	.4	.2	.0	.0	.6
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.0	2.4	.6	.0	.0	6.9

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1
1-2	.0	1.4	1.5	.0	.0	.0	2.9
3-4	.0	.1	.6	.1	.0	.0	.7
5-6	.0	.0	.1	.7	.0	.0	.9
7	.0	.0	.4	.2	.0	.0	.6
8-9	.0	.0	.6	.5	.2	.0	1.2
10-11	.0	.0	.0	.3	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.7	3.2	1.9	.2	.0	6.9

PERIOD: (OVER-ALL) 1963-1977 JULY AREA 0025 AUCKLAND WEST 35.0S 172.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	2.7	.2	.0	.0	.0	2.9
3-4	.4	1.7	2.9	.2	.0	.0	5.2
5-6	.0	.0	2.2	.5	.0	.0	2.7
7	.0	.0	.2	.2	.0	.0	.4
8-9	.0	.0	.4	.4	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.7	5.8	1.6	.0	.0	12.5

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.2	.0		.0	.0	.6
1-2	.2	3.8	1.9	.0	.0	.0	5.9
3-4	.1	2.0	3.3	.0	.0	.0	5.4
5-6	.0	.5	3.1	1.8	.2	.0	5.6
7	.0	.2	.8	.3	.6	.0	2.0
8-9	.0	.0	.1	.5	.2	.0	.8
10-11	.0	.0	.2	.6	.2	.0	1.1
12	.0	.0	.2	.3	.3	.0	.9
13-16	.0	.0	.0	1.2	.3	.0	1.6
17-19	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	6.8	9.7	4.7	2.3	.0	24.1

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2
1-2	.2	2.5	1.3	.0	.0	.0	4.1
3-4	.0	3.4	2.8	.0	.0	.0	6.2
5-6	.0	.2	1.9	1.2	.0	.0	3.3
7	.0	.0	1.2	.7	.9	.0	2.8
8-9	.0	.0	.5	.6	.0	.0	1.1
10-11	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.2	.2	.0	.4
13-16	.0	.0	.2	.0	.2	.0	.4
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	6.2	7.9	3.0	1.4	.0	19.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.2	2.0	.6	.0	.0	.0	2.8	
3-4	.0	1.0	.7	.0	.0	.0	1.7	
5-6	.0	.2	1.1	.0	.0	.0	1.4	
7	.0	.0	.2	.6	.0	.0	.8	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.2	.0	.2	.0	.0	.5	
12	.0	.0	.2	.2	.0	.0	.5	
13-16	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	3.5	2.9	1.3	.2	.0	8.2	97.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.4	1.5	.0	.0	.0	.0	5.9	
1-2	1.0	18.9	7.4	.0	.0	.0	27.3	
3-4	.7	10.6	13.8	.5	.0	.0	25.6	
5-6	.0	1.0	12.0	4.9	.2	.0	18.2	
7	.0	.2	4.4	4.2	1.5	.0	10.3	
8-9	.0	.0	2.0	1.7	.5	.0	4.2	
10-11	.0	.2	.5	2.5	.2	.0	3.4	
12	.0	.0	.5	.7	.5	.0	1.7	
13-16	.0	.0	.2	2.0	.5	.0	2.7	
17-19	.0	.0	.0	.0	.5	.0	.5	
20-22	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.1	32.4	40.8	16.5	4.2	.0	100.0	407

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	4.7	6.3	3.6	3.8	2.5	1.4	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	106	5
6-7	.0	.7	6.3	7.2	5.9	5.0	2.0	1.6	3.4	.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	148	7
8-9	.0	.5	2.7	4.3	2.3	1.6	1.6	2.7	2.7	.7	.0	.2	.2	.0	.0	.0	.0	.0	.0	86	8
10-11	.0	.2	.2	.2	1.1	.7	1.6	.9	1.4	.7	.9	.5	.2	.2	.0	.0	.0	.0	.0	59	13
12-13	.0	.0	2.0	.0	.2	1.1	.2	.5	.5	.9	.2	.2	.5	.2	.0	.0	.0	.0	.0	29	11
>13	.0	.0	.0	.0	.2	.2	.5	.2	.2	.2	.5	.0	.0	.2	.0	.2	.0	.0	.0	11	18
INDET	1.8	.9	.5	.2	.5	.5	.5	.5	.2	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	29	6
TOTAL	9	31	80	70	62	51	54	28	61	15	11	4	4	3	0	1	0	0	0	444	8
PCT	2.0	7.0	18.0	15.8	14.0	11.5	7.7	6.3	9.2	3.4	2.5	.9	.9	.7	.0	.2	.0	.0	.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1902-1977
(OVER-ALL) 1873-1977

AREA 0025 AUCKLAND WEST
35.8S 173.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	11.9	9.1	5.9	.0	.0	.0	.0	25.8	4.8	4.1	3.2	.9	.7	.0		62.3
NE	8.0	17.4	3.4	.0	.0	.0	.0	28.0	2.7	.0	3.6	.0	.2	.0		65.5
E	2.3	19.0	1.4	.0	.0	.0	.0	22.7	1.8	.0	.7	.0	.0	.0		74.8
SE	1.1	2.8	1.1	.0	.0	.0	.0	5.1	2.8	1.1	.0	.0	.0	1.1		89.7
S	.9	4.6	2.5	.0	.0	.0	.0	7.1	6.4	1.8	.0	.0	.5	.0		84.2
SW	3.4	6.8	1.9	.0	.0	.0	.0	12.1	3.9	.8	3.4	.0	.4	.0		80.3
W	2.4	5.3	.4	.0	.0	.0	.0	8.2	1.6	.0	3.3	.0	.8	.0		86.1
NW	7.5	10.0	3.6	.0	.0	.0	.0	21.1	3.6	5.0	.9	.0	1.8	.0		68.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	3.7	.0	.0	.0	.0	.0	.0	3.7	.0	14.8	7.4	.0	3.7	.0		70.4
TOT PCT	4.7	9.1	2.4	.0	.0	.0	.0	15.9	3.3	2.0	2.1	.1	.7	.1		76.2
TOT OBS:	898															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	2.8	9.4	1.4	.0	.0	.0	.0	13.6	2.8	.0	1.0	.3	1.4	.0		80.8
06609	6.7	5.4	2.1	.0	.0	.0	.0	13.8	3.9	.8	2.1	.0	1.3	.0		79.1
12615	4.8	10.5	2.2	.0	.0	.0	.0	17.5	3.1	5.7	2.2	.0	.0	.0		72.1
18621	5.0	9.5	4.0	.0	.0	.0	.0	17.4	4.0	2.0	3.5	.0	.0	.5		73.6
TOT PCT	4.7	8.7	2.3	.0	.0	.0	.0	15.4	3.2	2.0	2.1	.1	.7	.1		76.8
TOT OBS:	956															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.9	5.1	4.8	.9	.4	.0		12.1	12.9	13.7	12.5	13.3	8.7	9.9	13.5	11.3	12.1
NE	.3	4.0	4.1	1.8	.4	.0		10.6	15.0	11.2	14.6	8.6	10.0	10.9	13.9	7.3	11.6
E	.3	4.0	4.8	2.3	.4	*		11.9	15.7	12.1	21.4	9.4	14.8	10.6	14.6	7.3	11.4
SE	1.1	3.5	3.4	1.6	.1	*		9.8	13.5	10.8	2.9	9.7	9.2	9.8	12.5	6.7	14.4
S	1.0	5.4	6.1	.6	.2	.0		13.2	11.7	10.5	7.5	14.1	12.4	20.8	11.1	18.5	6.7
SW	1.0	4.6	4.7	2.6	.2	.0		13.1	14.3	12.1	13.2	15.8	15.5	11.5	8.0	15.9	12.1
W	2.0	5.5	5.0	1.7	.1	.0		14.3	12.2	15.3	17.1	14.0	12.1	11.2	11.5	15.1	18.3
NW	.4	4.8	5.6	1.2	.0	.0		11.9	12.8	13.3	10.7	13.3	12.4	11.0	6.6	13.9	9.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.1							3.1	.0	1.1	.0	1.8	4.9	4.3	8.3	4.0	4.0
TOT OBS	108	392	408	135	19	1	1063		13.0	267	70	103	103	101	72	126	101
TOT PCT	10.2	36.9	38.4	12.7	1.8	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.0	5.2	3.2	.6	.1		12.1	12.9	13.4	11.6	11.1	11.7
NE	1.2	5.5	2.9	1.3	*		10.6	15.0	11.9	9.1	11.8	9.3
E	1.8	4.6	4.1	1.2	.2		11.9	15.7	14.0	11.5	11.8	9.1
SE	2.3	3.9	2.6	.7	.2		9.8	13.5	9.1	9.5	10.6	10.1
S	3.4	6.7	2.8	.3	.0		13.2	11.7	9.9	13.4	17.8	13.2
SW	2.9	5.2	3.6	1.4	.0		13.1	14.3	12.3	15.7	10.4	14.2
W	4.0	6.0	3.2	.9	.1		14.3	12.2	15.7	13.3	11.3	16.5
NW	2.1	6.6	2.8	.4	.0		11.9	12.8	12.8	13.0	9.7	11.9
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.1						3.1	.0	.9	3.0	5.6	4.0
TOT OBS	294	485	265	73	6	1063		13.0	337	266	233	227
TOT PCT	23.9	43.7	24.9	6.9	.6		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	.9	5.0	40.1	39.5	13.4	1.2	.0	13.4	100.0	337
06&09	3.0	5.3	36.8	42.1	10.2	2.6	.0	13.2	100.0	266
12&15	5.6	10.3	33.5	35.2	13.3	1.7	.4	12.4	100.0	233
18&21	4.0	8.8	35.7	35.7	14.1	1.8	.0	13.0	100.0	227
TOT	33	75	392	408	135	19	1	13.0		1063
PCT	3.1	7.1	36.9	38.4	12.7	1.8	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.6	2.1	4.7	6.1		5.9
NE	2.1	1.1	3.3	4.6		5.6
E	1.9	1.3	3.2	1.7		4.8
SE	2.1	.5	4.2	1.5		5.0
S	4.8	3.4	5.8	1.6		4.2
SW	2.9	4.7	5.8	1.7		4.5
W	3.1	4.3	6.0	.4		4.1
NW	2.5	1.3	4.8	3.9		5.5
VAR	.0	.0	.0	.0		.0
CALM	.7	.0	.5	.5		4.4
TOT OBS	90	78	158	89	415	4.9
TOT PCT	21.7	18.8	38.1	21.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.2	1.3	2.5	3.3	1.4	.2	.0	.0	.0	5.4	
NE	.3	.0	.5	1.6	2.5	.2	.1	.3	.0	.0	4.9	
E	.2	.0	.0	.4	2.2	.4	.4	.2	.0	.0	4.2	
SE	.0	.0	.5	1.1	.8	1.1	.5	.0	.0	.0	4.1	
S	.0	.0	.0	2.0	2.6	1.3	.0	.0	.0	.0	9.6	
SW	.0	.0	.2	1.1	2.0	1.6	.3	.2	.0	.0	9.6	
W	.0	.0	.2	1.1	2.0	.8	.4	.0	.0	.0	9.3	
NW	.0	.0	.3	2.1	2.5	1.0	.5	.0	.2	.0	5.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	1.2	
TOT OBS	3	1	13	30	75	34	10	3	1	0	223	415
TOT PCT	.7	.2	3.1	12.0	18.1	8.2	2.4	.7	.2	.0	54.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.0	.2	.2	.2	.2	.2	.2	.2
* OR >5000	.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2
* OR >3500	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5
* OR >2000	9.1	11.5	11.7	11.7	11.7	11.7	11.7	11.7
* OR >1000	22.0	28.6	29.7	29.7	29.7	29.7	29.7	29.7
* OR >600	27.4	38.2	41.0	41.5	41.5	41.5	41.5	41.5
* OR >300	27.9	39.8	43.8	44.3	44.3	44.3	44.3	44.3
* OR >150	27.9	39.8	43.8	44.5	44.5	44.5	44.5	44.5
* OR > 0	28.1	40.3	44.3	45.2	45.2	45.2	45.2	45.2
TOTAL	120	172	189	193	193	193	193	193

TOTAL NUMBER OF OBS: 427 PCT FREQ NH <5/8: 54.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
5.7	13.6	13.6	9.2	12.4	7.5	10.7	10.7	16.1	.4	477

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
<1/2	NO PCP	.0	.0	.0	.1	.0	.1	.2	.0	.0	.2	.7	
	TOT %	.0	.1	.0	.1	.0	.1	.2	.0	.0	.2	.8	
	PCP	.0	.8	.8	.0	.0	.0	.0	.0	.0	.1	1.7	
1/2<1	NO PCP	.2	.4	.0	.0	.0	.1	.1	.0	.0	.0	.9	
	TOT %	.2	1.2	.8	.0	.0	.1	.1	.0	.0	.1	2.6	
	PCP	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.4	
1<2	NO PCP	.0	.0	.0	.0	.1	.1	.0	.1	.0	.0	.2	
	TOT %	.3	.1	.0	.0	.1	.1	.0	.1	.0	.0	.7	
	PCP	.6	.2	.0	.0	.1	.3	.1	.2	.0	.0	1.3	
2<5	NO PCP	.4	.2	.1	.1	.2	.1	.1	.3	.0	.1	1.6	
	TOT %	1.0	.4	.1	.1	.3	.3	.1	.5	.0	.1	2.9	
	PCP	2.0	2.0	1.8	.4	.7	.6	.8	2.2	.0	.0	10.4	
5<10	NO PCP	3.7	3.2	5.4	4.5	3.1	3.7	4.2	3.1	.0	1.7	32.5	
	TOT %	5.6	5.2	7.2	4.9	3.7	4.3	5.0	5.3	.0	1.7	42.9	
	PCP	.3	*	.2	.1	.0	.6	.2	.2	.0	.0	1.7	
10+	NO PCP	4.8	4.5	4.0	4.6	8.0	7.5	8.0	6.2	.0	.9	48.5	
	TOT %	5.1	4.6	4.2	4.7	8.0	8.1	8.2	6.4	.0	.9	50.2	
	TOT OBS												895
	TOT PCT	12.2	11.6	12.3	9.8	12.1	13.0	13.6	12.3	.0	3.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.1	.2	.0	.0	.2	.6	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.1	.0	.1	.0	.0	.0	.0	.0		.2	
	TOT %	.0	.1	.0	.1	.0	.1	.2	.0	.0	.2	.8	
	0-3	.0	.0	.0	.0	.0	.1	.1	.0	.0	.1	.3	
1/2<1	4-10	.2	.3	.0	.0	.0	.0	.0	.0	.0		.6	
	11-21	.0	.2	.2	.0	.0	.0	.0	.1	.0		.6	
	22+	.0	.7	.6	.0	.0	.0	.0	.0	.0		1.2	
	TOT %	.2	1.2	.8	.0	.0	.1	.1	.1	.0	.1	2.6	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.0	.1	.1	.0	.1	.0		.2	
	11-21	.1	.0	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.2	.1	.0	.0	.0	.0	.0	.0	.0		.3	
	TOT %	.3	.1	.0	.0	.1	.1	.0	.1	.0	.0	.7	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
2<5	4-10	.2	*	.0	.0	.1	.1	.1	.3	.0		.9	
	11-21	.6	.4	.1	.0	.1	.1	.1	.2	.0		1.5	
	22+	.2	.1	.1	.1	.1	.1	.0	.0	.0		.7	
	TOT %	1.0	.5	.2	.1	.3	.3	.1	.6	.0	.1	3.2	
	0-3	.8	.2	.2	.4	.3	.8	1.4	.4	.0	1.7	6.2	
5<10	4-10	2.4	1.9	2.2	1.9	1.9	2.0	1.6	1.5	.0		15.4	
	11-21	1.7	2.2	3.1	1.3	1.4	.7	1.3	2.6	.0		14.2	
	22+	.7	1.0	1.7	1.2	.1	.8	.8	.7	.0		6.7	
	TOT %	5.5	5.3	7.1	4.8	3.7	4.3	4.9	5.2	.0	1.7	42.6	
	0-3	.3	.1	.2	.8	.5	.0	.4	.0	.0	.9	3.3	
10+	4-10	2.1	2.2	1.8	1.4	3.1	2.1	3.4	2.7	.0		18.9	
	11-21	2.2	1.6	1.8	2.2	3.8	4.2	3.2	2.9	.0		21.9	
	22+	.5	.6	.4	.5	.6	1.7	1.0	.7	.0		6.1	
	TOT %	5.1	4.5	4.2	4.9	8.0	8.0	8.1	6.3	.0	.9	50.2	
	TOT OBS												907
	TOT PCT	12.2	11.8	12.3	10.0	12.1	12.9	13.5	12.3	.0	3.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1902-1977
(OVER-ALL) 1873-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.7	.0	3.7	11.9	15.7	5.2	4.5	.0	.7	.0	42.5	57.5	134
06&09	.8	.8	2.3	9.8	14.4	13.6	3.8	1.5	.0	.0	47.0	53.0	132
12&15	1.2	.0	3.5	10.5	18.6	5.8	.0	1.2	.0	.0	40.7	59.3	86
18&21	.0	.0	1.9	11.5	21.2	4.8	.0	1.0	.0	.0	40.4	59.6	104
TOT	3	1	13	50	78	35	11	4	1	0	196	260	456
PCT	.7	.2	2.9	11.0	17.1	7.7	2.4	.9	.2	.0	43.0	57.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	3.8	1.0	2.1	46.3	46.3	287
06&09	.0	2.1	.8	4.5	36.6	56.0	243
12&15	1.3	2.6	.0	3.4	49.4	43.3	233
18&21	2.0	2.0	.5	2.5	39.6	53.5	202
TOT	8	26	6	30	417	478	965
PCT	.8	2.7	.6	3.1	43.2	49.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.8	4.5	18.2	25.0	56.8	132
06&09	.8	4.0	16.9	33.1	50.0	124
12&15	1.3	5.3	17.3	29.3	53.3	75
18&21	.0	1.0	14.6	27.1	58.3	96
TOT	3	16	72	122	233	427
PCT	.7	3.7	16.9	28.6	54.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.2	.3	.0	.0	.0	.6	.0	7	1.1
60/64	.0	.0	.0	.8	2.9	3.1	6.0	5.0	110	17.8
55/59	.0	.2	.2	1.9	7.4	19.6	18.8	15.0	390	63.1
50/54	.0	.0	.0	.9	1.5	3.9	6.3	4.4	101	16.3
45/49	.0	.0	.0	.0	.2	.0	.3	1.0	9	1.5
40/44	.0	.0	.0	.0	.0	.0	.0	.2	1	.2
TOTAL	0	2	3	19	74	164	198	158	618	100.0
PCT	.0	.3	.5	3.1	12.0	26.5	32.0	25.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.4	.2	.0	.0	.0	.3	.0	.0	.2
5.2	3.1	1.0	.3	1.5	.6	2.2	3.8	.0	.2
7.1	5.9	4.8	6.2	9.5	9.5	9.4	9.3	.0	1.5
1.2	.8	2.8	2.4	3.0	3.2	1.3	.4	.0	1.1
.0	.0	.2	.4	.4	*	.0	.0	.0	.5
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
13.6	10.2	8.9	9.4	14.4	13.4	13.3	13.6	.0	3.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	68	65	62	57	53	51	50	57.8	367
06&09	66	65	62	57	52	49	48	57.0	280
12&15	63	62	60	55	48	44	39	54.6	248
18&21	67	63	61	56	49	45	41	55.5	295
TOT	68	64	61	57	50	46	39	56.4	1110

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	5.8	17.5	27.7	27.7	21.4	79	206
06&09	.0	4.1	15.2	22.2	32.2	26.3	81	171
12&15	.0	1.6	5.6	25.6	36.0	31.2	85	125
18&21	.0	4.1	9.5	30.4	31.1	25.0	81	148
TOT	0	27	89	172	203	165	81	650

AUGUST

PERIOD: (PRIMARY) 1902-1977
(OVER-ALL) 1873-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
11/13	.0	.0	.0	.0	.4	.0	.0	3	.0	.4
9/10	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
7/8	.0	.0	.0	.0	.6	.4	.3	10	.0	1.3
6	.0	.0	.0	.0	1.2	.9	.0	13	.1	1.5
5	.0	.0	.0	.1	1.3	1.4	.1	23	.1	2.8
4	.0	.0	.0	.6	2.7	1.5	.1	39	.3	4.8
3	.0	.0	.0	1.3	3.5	1.3	.0	47	.1	5.9
2	.0	.0	.0	3.9	5.0	1.5	.3	83	.0	10.7
1	.0	.0	.1	6.2	4.1	1.5	.0	93	.4	11.6
0	.0	.0	.8	6.6	5.7	1.9	.0	116	.1	14.8
-1	.0	.0	1.4	3.5	5.0	.5	.0	81	.1	10.3
-2	.0	.0	2.3	4.0	3.9	.4	.0	82	.1	10.4
-3	.0	.1	2.1	3.3	3.0	.0	.0	66	.1	8.4
-4	.0	.4	1.3	2.2	1.7	.0	.0	43	.3	5.3
-5	.0	1.0	.6	2.6	.9	.0	.0	40	.3	4.6
-6	.0	.4	.3	1.0	.3	.0	.0	15	.0	1.9
-7/-8	.3	.3	.4	.5	.0	.0	.0	11	.1	1.3
-9/-10	.1	.0	.4	.3	.1	.0	.0	7	.1	.8
-11/-13	.0	.1	.1	.0	.0	.0	.0	2	.0	.3
-14/-16	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	3	18	77	280	306	87	6	777	20	757
PCT	.4	2.3	9.9	36.0	39.4	11.2	.8	100.0	2.6	97.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.3	.0	.0	.0	.0	.9
1-2	.0	1.9	1.2	.0	.0	.0	3.1
3-4	.0	2.1	4.0	.5	.0	.0	6.6
5-6	.0	.5	1.7	.3	.0	.0	2.5
7	.0	.0	.3	.6	.5	.0	1.7
8-9	.0	.0	.0	.0	.3	.0	.3
10-11	.0	.0	.5	.3	.3	.0	1.1
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.8	7.9	2.0	1.1	.0	16.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	2.6	.9	.0	.0	.0	3.5
3-4	.0	.4	2.7	.4	.0	.0	3.4
5-6	.0	.0	.4	.3	.3	.0	1.0
7	.0	.3	.0	1.0	.1	.0	1.4
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.0	.3	.0	.3
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.7	4.0	2.1	.7	.0	10.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.4	.0	.0	.0	.0	1.4
1-2	.3	.9	.8	.0	.0	.0	2.1
3-4	.0	.2	1.8	.0	.0	.0	2.0
5-6	.0	.0	.0	.8	.0	.0	.8
7	.0	.0	.6	.2	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.6	3.2	1.0	.0	.0	7.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.6	1.6	.4	.0	.0	.0	2.6
3-4	.0	.3	1.1	.6	.0	.0	2.1
5-6	.0	.0	1.3	.5	.3	.0	2.1
7	.0	.0	.3	.3	.0	.0	.6
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.2	3.5	1.7	.3	.0	8.3

PERIOD: (OVER-ALL) 1963-1977 AUGUST AREA 0025 AUCKLAND WEST 35.0S 173.1E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5
1-2	.6	5.0	.7	.0	.0	.0	6.3
3-4	.0	.3	2.9	.0	.0	.0	3.2
5-6	.0	.3	1.3	.0	.0	.0	1.6
7	.0	.0	1.7	.2	.0	.0	1.9
8-9	.0	.0	.2	.8	.0	.0	1.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.2	.0	.2
13-16	.0	.0	.3	.0	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	6.2	7.1	1.1	.2	.0	15.2

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1
1-2	.0	1.4	.5	.0	.0	.0	1.8
3-4	.0	.8	2.1	.0	.0	.0	2.9
5-6	.0	.9	2.3	.6	.0	.0	3.8
7	.0	.0	1.8	.5	.0	.0	2.3
8-9	.0	.0	.3	1.7	.0	.0	2.0
10-11	.0	.3	.0	.6	.0	.0	.9
12	.0	.0	.0	.0	.1	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.4	6.9	3.4	.1	.0	13.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.9	.0	.0	.0	.0	1.2
1-2	.3	2.5	.5	.0	.0	.0	3.4
3-4	.0	1.1	1.8	.0	.0	.0	2.8
5-6	.0	.6	3.2	.2	.0	.0	4.0
7	.0	.0	.5	.5	.0	.0	1.0
8-9	.0	.3	.0	.5	.0	.0	.8
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.5	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.4	6.3	1.8	.0	.0	14.1

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	3.3	.8	.0	.0	.0	4.0	
3-4	.0	.7	2.3	.0	.0	.0	3.0	
5-6	.0	.7	2.1	.7	.0	.0	3.4	
7	.0	.0	.4	.6	.0	.0	1.0	
8-9	.0	.0	.6	.6	.0	.0	1.2	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.3	.0	.0	.3	
13-16	.0	.0	.0	.1	.0	.0	.1	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	4.6	6.3	2.3	.0	.0	13.2	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.7	4.2	.0	.0	.0	.0	7.0	
1-2	1.8	19.1	5.8	.0	.0	.0	26.7	
3-4	.0	5.8	18.5	1.5	.0	.0	25.8	
5-6	.0	3.0	12.1	3.3	.6	.0	19.1	
7	.0	.3	5.8	3.9	.6	.0	10.6	
8-9	.0	.3	1.5	3.9	.3	.0	6.1	
10-11	.0	.3	.9	1.2	.6	.0	3.0	
12	.0	.0	.0	.6	.3	.0	.9	
13-16	.0	.0	.3	.6	.0	.0	.9	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.5	33.0	44.8	15.2	2.4	.0	100.0	330

PERIOD: (OVER-ALL) 1951-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	2.5	6.1	7.5	6.1	2.2	1.7	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	97	5
6-7	.0	2.5	4.7	8.1	7.0	7.0	2.8	1.4	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	124	6
8-9	.0	.0	.6	1.7	5.0	2.5	1.7	1.9	1.1	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	54	9
10-11	.0	.6	.6	.6	1.1	.8	1.1	.8	1.4	.0	.6	.0	.0	.0	.3	.0	.0	.0	.0	28	11
12-13	.0	.0	.8	.8	.6	.3	.8	.6	.3	.3	.0	.3	.3	.0	.0	.0	.0	.0	.0	18	10
>13	.0	.0	.0	.0	1.7	.6	1.1	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	9
INDET	.6	.0	1.4	.8	1.7	1.4	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	6
TOTAL	3	20	51	70	83	53	34	17	19	3	3	1	1	0	1	0	0	0	0	389	7
PCT	.8	5.6	14.2	19.5	23.1	14.8	9.5	4.7	5.3	.8	.8	.3	.3	.0	.3	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1878-1977

AREA 0025 AUCKLAND WEST
36.7S 174.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	8.2	6.3	6.9	.0	.0	.0	.0	21.5	9.1	.0	1.3	.0	.6		.0	67.5
NE	6.8	5.3	11.3	.0	.0	.0	.0	23.3	2.6	.0	3.0	.0	1.3		.4	69.2
E	21.6	2.5	5.4	.0	.0	.0	.0	28.2	4.6	.0	.0	.0	.0		1.2	66.0
SE	8.2	3.7	1.9	.0	.0	.0	.0	13.5	1.5	1.5	1.5	.0	1.9		.0	80.1
S	4.5	2.9	1.7	.0	.0	.0	.0	8.4	1.7	1.0	1.0	.0	.7		.0	87.3
SW	1.9	2.3	.9	.0	.0	.0	.0	4.9	2.4	.0	4.9	.0	.0		.0	87.8
W	3.0	5.8	.8	.0	.0	.0	.8	10.3	5.4	.0	.4	.0	.0		.0	83.9
NW	11.1	6.7	2.0	.0	.0	.0	1.3	21.1	1.7	.0	2.0	.0	.7		2.7	71.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	5.3	.0	.0	.0	.0	.0	.0	5.3	.0	.0	.0	.0	.0		.0	94.7
TOT PCT	6.8	4.2	3.1	.0	.0	.0	.3	14.1	3.5	.3	1.9	.0	.5		.4	79.3
TOT OBS:	740															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.3	3.6	3.2	.0	.0	.0	.4	13.5	2.8	.0	3.2	.0	1.2		.0	79.4
06&09	7.8	2.4	2.4	.0	.0	.0	.0	12.7	4.9	1.0	1.0	.0	.5		.5	79.3
12&15	6.8	10.5	4.5	.0	.0	.0	.8	21.1	4.5	.0	.0	.0	.0		.0	74.4
18&21	6.3	2.3	2.3	.0	.0	.0	.6	11.4	1.7	1.1	2.3	.0	.0		1.1	82.9
TOT PCT	6.8	4.2	3.0	.0	.0	.0	.4	14.1	3.4	.5	1.8	.0	.5		.4	79.3
TOT OBS:	765															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.4	3.6	3.6	1.1	.0	.0		9.7	11.8	9.9	12.2	6.3	12.5	10.2	8.1	10.6	10.8
NE	.5	4.3	2.8	.9	.3	.0		8.8	12.3	9.6	9.6	9.3	11.3	8.2	11.0	6.5	13.9
E	.3	2.5	3.2	1.3	.2	.2		7.7	16.3	8.0	9.0	8.9	6.7	7.7	8.1	7.5	4.9
SE	.6	3.8	3.6	.9	.2	.1		9.3	13.0	10.3	5.1	10.6	6.1	8.9	9.3	12.6	3.1
S	1.1	8.0	4.8	1.6	.2	.0		15.7	11.9	13.9	14.7	20.0	16.5	15.3	17.4	11.6	19.1
SW	1.0	7.3	7.0	3.9	.2	.0		19.4	14.2	18.8	18.6	22.6	15.2	18.1	23.8	20.1	18.1
W	.8	4.9	6.4	4.2	.4	.0		16.8	16.0	16.4	27.6	16.6	16.8	19.1	15.1	15.9	11.8
NW	1.1	3.2	4.2	1.2	.3	.0		9.9	13.2	11.1	3.2	8.4	12.5	8.4	2.3	12.0	12.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.7							2.7	.0	2.0	.0	1.3	2.4	4.1	4.7	3.3	5.6
TOT OBS	83	325	309	130	15	2	864		13.3	252	39	155	82	98	43	123	72
TOT PCT	9.6	37.6	35.8	15.0	1.7	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.8	4.0	2.5	.4	.0		9.7	11.8	10.2	8.4	9.6	10.6
NE	2.7	3.5	2.1	.5	.0		8.8	12.3	9.6	7.4	9.0	9.2
E	1.3	3.0	2.7	.5	.3		7.7	16.3	8.2	8.1	7.8	6.5
SE	2.1	4.6	2.1	.3	.2		9.3	13.0	9.6	9.1	9.0	9.1
S	4.4	7.3	3.1	.8	.1		15.7	11.9	14.0	18.8	16.0	14.4
SW	4.2	7.6	5.9	1.7	.0		19.4	14.2	18.7	20.0	19.9	19.4
W	2.0	7.1	5.8	1.6	.1		16.8	16.0	17.9	16.7	17.9	14.4
NW	2.4	4.8	1.9	.7	.1		9.9	13.2	10.1	9.8	6.6	12.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.7						2.7	.0	1.7	1.7	4.3	4.1
TOT OBS	213	362	226	56	7	864		13.3	291	297	141	195
TOT PCT	24.7	41.9	26.2	6.5	.8		100.0		100.0	100.0	100.0	100.0

SEPTEMBER

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1878-1977

AREA 0025 AUCKLAND WEST
36.7S 174.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.7	5.5	35.4	40.5	14.8	1.7	.3	13.9	100.0	291
06&09	1.7	9.7	37.6	32.1	16.5	2.1	.4	13.5	100.0	237
12&15	4.3	6.4	36.2	34.0	17.0	2.1	.0	13.4	100.0	141
18&21	4.1	6.2	42.1	34.4	12.3	1.0	.0	12.2	100.0	195
TOT	23	60	325	309	130	15	2	13.3		864
PCT	2.7	6.9	37.6	35.8	15.0	1.7	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.2	.8	2.4	2.7		5.7
NE	.8	1.0	1.2	2.5		5.6
E	1.8	.5	3.6	4.7		5.9
SE	5.0	1.7	4.3	1.7		4.1
S	4.7	3.1	4.6	1.9		4.2
SW	4.4	6.5	7.2	1.6		4.2
W	4.0	5.6	7.4	3.9		4.6
NW	1.1	2.0	2.4	3.1		5.7
VAR	.0	.0	.0	.0		.0
CALM	.7	.2	.2	.2		3.6
TOT OBS	103	93	144	94	434	4.8
TOT PCT	23.7	21.4	33.2	21.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.5	.0	.2	1.4	.9	.5	.2	.0	.0	.0	3.3	
NE	.0	.0	.7	.9	.2	.8	.0	.0	.0	.0	2.8	
E	.0	.0	1.6	1.4	1.6	1.0	.5	.0	.0	.0	4.4	
SE	.0	.0	.6	.7	1.7	1.7	.1	.0	.0	.1	7.8	
S	.2	.0	.3	.9	2.1	1.3	.6	.0	.0	.2	8.6	
SW	.0	.0	.6	1.8	2.7	1.2	.1	.1	.0	.2	12.9	
W	.0	.2	.4	3.2	3.2	.9	.4	.2	.2	.0	11.5	
NW	.2	.0	.5	1.6	1.0	.7	.5	.0	.0	.0	4.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	1.2	
TOT OBS	4	1	22	53	59	35	10	1	1	2	246	434
TOT PCT	.9	.2	5.1	12.2	13.6	8.1	2.3	.2	.2	.5	56.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	.4	.7	.7	.7	.7	.7	.7	.7
= OR >3000	.7	.9	.9	.9	.9	.9	.9	.9
= OR >2500	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4
= OR >2000	10.1	11.6	11.6	11.6	11.6	11.6	11.6	11.6
= OR >1000	20.8	23.9	25.5	25.5	25.5	25.5	25.5	25.5
= OR >600	28.4	34.5	37.1	37.4	37.4	37.4	37.4	37.4
= OR >300	30.0	37.1	41.4	42.1	42.1	42.3	42.3	42.3
= OR >150	30.0	37.1	41.6	42.3	42.3	42.5	42.5	42.5
= OR > 0	30.2	37.6	42.1	43.0	43.2	43.4	43.4	43.4
TOTAL	135	168	188	192	193	194	194	194

TOTAL NUMBER OF OBS: 447 PCT FREQ NH <5/8: 56.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
9.0	12.3	15.4	12.3	11.4	8.7	7.9	7.9	15.3 .8	481

SEPTEMBER

PERIOD: (PRIMARY) 1924-1977
(OVER-ALL) 1878-1977

AREA 0025 AUCKLAND WEST
35.7S 172.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.3	
1/2<1	PCP	.2	.1	.0	.1	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.3	.0	.0	.3	.0	.0	.1	.0	.0	.7	
	TOT %	.2	.3	.0	.1	.3	.0	.0	.1	.0	.0	1.1	
1<2	PCP	.3	.1	.2	.1	.2	.2	.1	.0	.0	.0	1.4	
	NO PCP	.1	.0	.0	.0	.0	.1	.0	.1	.0	.0	.3	
	TOT %	.4	.1	.2	.1	.2	.3	.1	.1	.0	.0	1.6	
2<5	PCP	.0	*	.7	.2	.2	.1	.1	.6	.0	.0	1.9	
	NO PCP	.3	.3	.3	.1	.0	.2	.2	.0	.0	.0	1.4	
	TOT %	.3	.3	1.0	.3	.2	.2	.3	.6	.0	.0	3.2	
5<10	PCP	1.4	1.6	.7	.6	.7	.3	1.1	.9	.0	.0	7.3	
	NO PCP	2.8	3.2	.5	.7	1.9	4.8	3.2	2.2	.0	.4	19.6	
	TOT %	4.2	4.7	1.2	1.3	2.6	5.0	4.3	3.1	.0	.4	26.9	
10+	PCP	.3	.3	.6	.1	.1	.4	.4	.6	.0	.1	3.0	
	NO PCP	5.3	3.2	5.0	7.0	10.8	19.2	11.9	5.5	.0	2.0	63.9	
	TOT %	5.6	3.5	5.6	7.1	10.8	13.6	12.2	6.1	.0	2.2	66.9	
	TOT OBS												740
	TOT PCT	10.7	9.0	8.1	9.0	14.1	19.4	17.0	10.1	.0	2.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.3	.0	.0	.0	.0		.3	
	11-21	.1	.3	.0	.1	.0	.0	.0	.1	.0		.7	
	22+	.1	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	TOT %	.2	.3	.0	.1	.3	.0	.0	.1	.0	.0	1.1	
1<2	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.1	.1	.0	.0	.0	.0	.1	.0	.0		.3	
	11-21	.2	.0	.0	.0	.0	.0	.0	.1	.0		.3	
	22+	.0	.1	.2	.1	.2	.3	.0	.0	.0		.9	
	TOT %	.4	.1	.2	.1	.2	.3	.1	.1	.0	.0	1.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.1	.0	.0	.2	.2	.1	.0		.9	
	11-21	.0	.1	.4	.3	.2	.1	.0	.1	.0		1.2	
	22+	.1	*	.4	.1	.0	.0	.1	.3	.0		1.1	
	TOT %	.3	.3	1.0	.3	.2	.2	.3	.6	.0	.0	3.2	
5<10	0-3	.1	.1	.0	.1	.5	.0	.0	.1	.0	.4	1.5	
	4-10	1.8	2.8	.3	.3	1.1	2.4	1.4	.6	.0		10.8	
	11-21	1.7	1.1	.5	.7	.7	1.7	1.4	1.4	.0		9.2	
	22+	.6	.7	.4	.1	.3	1.0	1.4	.9	.0		5.4	
	TOT %	4.2	4.7	1.2	1.3	2.6	5.0	4.3	3.1	.0	.4	26.8	
10+	0-3	1.1	.4	.3	.6	.8	1.1	.7	1.0	.0	2.3	8.2	
	4-10	2.0	1.3	2.1	3.1	4.9	5.0	3.1	2.6	.0		24.4	
	11-21	2.0	1.3	2.5	2.6	3.8	5.3	5.4	2.2	.0		23.2	
	22+	.4	.2	.7	.9	1.4	2.2	2.1	.3	.0		9.3	
	TOT %	5.6	3.5	5.6	7.2	10.9	13.6	12.2	6.1	.0	2.3	67.0	
	TOT OBS												743
	TOT PCT	10.7	9.0	8.1	9.1	14.2	19.3	17.0	10.0	.0	2.7	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1878-1977

AREA 0025 AUCKLAND WEST
35.7S 172.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.7	.7	6.3	12.5	16.0	9.0	2.8	.0	.7	.0	48.6	51.4	144
06&09	1.5	.0	3.0	9.8	15.2	8.3	2.3	.0	.0	.8	40.9	59.1	132
12&15	.0	.0	3.8	12.5	10.0	10.0	2.5	1.3	.0	.0	40.0	60.0	80
18&21	.9	.0	5.5	11.0	10.1	4.6	1.8	.0	.0	.9	34.9	65.1	109
TOT	4	1	22	53	62	37	11	1	1	2	194	271	465
PCT	.9	.2	4.7	11.4	13.3	8.0	2.4	.2	.2	.4	41.7	58.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.8	.8	2.0	6.0	27.4	63.1	252
06&09	.0	1.0	2.4	1.5	22.4	72.7	208
12&15	.0	.0	1.5	.7	32.8	64.9	134
18&21	.0	2.3	.6	3.4	25.4	68.9	177
TOT	2	8	12	25	204	517	768
PCT	.3	1.0	1.6	3.3	26.6	67.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NM >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NM <5/8 AND 5+	TOTAL OBS
00&03	.7	7.9	24.5	25.9	49.6	139
06&09	1.6	4.7	15.5	26.4	58.1	129
12&15	.0	4.2	19.4	25.0	55.6	72
18&21	.9	6.5	17.8	17.8	64.5	107
TOT	4	27	87	107	253	447
PCT	.9	6.0	19.5	23.9	56.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.9	.2	.5	.0	9	1.5
60/64	.0	.0	.2	.9	4.0	6.9	8.1	8.4	163	28.1
55/59	.0	.2	.0	1.2	7.1	19.6	16.5	11.2	318	54.7
50/54	.0	.0	.0	.5	2.6	4.1	4.5	2.8	84	14.5
45/49	.0	.0	.0	.0	.2	.0	.9	.0	6	1.0
40/44	.0	.0	.0	.0	.0	.0	.2	.0	1	.2
TOTAL	0	1	1	13	85	173	178	130	581	100.0
PCT	.0	.2	.2	2.2	14.6	29.8	30.6	22.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.0	.0	.0	.0	.0	*	.4	.9	.0	.2
	5.6	3.1	2.8	2.1	2.4	2.9	3.5	4.9	.0	.9
	3.3	3.4	5.0	6.5	8.7	11.6	10.5	4.9	.0	.9
	.2	.2	.7	1.6	3.1	4.1	3.1	.9	.0	.5
	.2	.0	.0	.3	.2	.2	.0	.2	.0	.0
	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
	9.2	6.7	8.4	10.5	14.6	18.9	17.6	11.7	.0	2.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	68	66	64	59	54	49	45	58.9	292
06&09	66	64	63	57	54	52	43	57.8	293
12&15	63	62	61	56	50	49	49	56.4	161
18&21	63	62	61	57	51	49	48	56.6	195
TOT	68	65	63	58	52	49	43	57.7	861

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.6	23.5	29.6	24.5	18.9	78	196
06&09	.0	1.8	9.5	39.1	29.6	20.1	81	169
12&15	.0	3.2	11.8	15.1	43.0	26.9	83	93
18&21	.0	1.4	9.8	27.3	33.6	28.0	83	143
TOT	0	15	87	177	186	136	81	601

SEPTEMBER

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1878-1977

AREA 0025 AUCKLAND WEST
36.75 172.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
11/13	.0	.0	.0	.0	.2	.0	.2	2	.0	.4
7/8	.0	.0	.0	.0	1.1	1.1	.4	14	.0	2.5
6	.0	.0	.0	.4	.0	.4	.4	6	.0	1.1
5	.0	.0	.0	.0	.7	3.1	.2	22	.4	3.6
4	.0	.0	.0	.2	.4	3.4	.0	22	.0	4.0
3	.0	.0	.0	.7	2.4	2.0	.0	28	.0	5.1
2	.0	.0	.0	.4	5.3	3.4	.0	50	.5	8.5
1	.0	.0	.0	.5	6.2	2.2	.0	61	.0	11.1
0	.0	.0	.2	1.6	9.8	1.8	.2	75	.9	12.7
-1	.0	.0	.0	2.0	7.4	1.3	.0	59	.4	10.3
-2	.0	.0	.0	5.6	6.2	.4	.0	67	.4	11.8
-3	.0	.0	.2	4.3	3.3	.0	.0	43	.0	7.8
-4	.2	.0	.5	4.5	1.8	.4	.0	41	.0	7.4
-5	.0	.0	.5	3.6	.7	.4	.0	29	.0	5.3
-6	.0	.0	.4	1.3	.0	.0	.0	9	.0	1.6
-7/-8	.0	.4	1.3	.7	.7	.2	.0	18	.0	3.3
-9/-10	.0	.0	.4	.0	.0	.0	.0	2	.0	.4
-11/-13	.0	.0	.0	.0	.5	.0	.0	3	.0	.5
TOTAL	1		19		269		7		14	538
		2		143		111		552		
PCT	.2	.4	3.4	25.9	48.7	20.1	1.3	100.0	2.5	97.5

PERIOD: (OVER-ALL) 1962-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2
1-2	.0	1.0	1.0	.0	.0	.0	2.0
3-4	.0	.7	1.8	.3	.0	.0	2.8
5-6	.0	.2	.9	.4	.0	.0	1.6
7	.0	.0	.5	.5	.0	.0	1.0
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.0	4.3	1.6	.0	.0	8.1

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.9	.7	.0	.0	.0	1.6
3-4	.0	.5	1.8	.0	.0	.0	2.3
5-6	.0	.1	.4	.2	.0	.0	.7
7	.0	.0	.3	.3	.1	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.3	3.1	.6	.1	.0	5.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	1.8	.9	.0	.0	.0	2.8
3-4	.0	.0	2.6	.0	.0	.0	2.6
5-6	.0	.5	2.2	.9	.0	.0	3.6
7	.0	.5	.2	.5	.2	.0	1.2
8-9	.0	.0	.0	.5	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.5	.2	.7	
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.2	.0	.2	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.4	5.9	2.2	.5	.4	11.9

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.3	.0	.0	.0	.0	.8
1-2	.8	1.2	.9	.0	.0	.0	2.6
3-4	.3	.8	2.0	.0	.0	.0	3.1
5-6	.0	1.1	.8	.0	.0	.0	1.9
7	.0	.0	.1	.6	.0	.0	.7
8-9	.0	.0	.0	.0	.3	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.1	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.1	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	3.7	3.9	.6	.3	.1	9.8

PERIOD: (OVER-ALL) 1963-1977 SEPTEMBER AREA 0025 AUCKLAND WEST
TABLE 18 (CONT) 35.7S 172.8E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.3	.3	.0	.0	.0	.0	.6
1-2	.3	2.4	1.6	.0	.0	.0	4.2	.0	3.8	.7	.0	.0	.0	4.5
3-4	.0	1.5	1.8	.2	.0	.0	3.5	.0	1.2	4.0	.3	.0	.0	5.6
5-6	.0	.0	.5	.5	.0	.0	1.1	.0	.6	1.9	.8	.0	.0	3.3
7	.0	.0	.7	.5	.0	.0	1.2	.0	.0	2.7	1.0	.0	.0	3.7
8-9	.0	.0	.0	.2	.0	.0	.2	.0	.0	.6	.1	.0	.0	.1
10-11	.0	.0	.2	.8	.0	.0	1.0	.0	.0	.1	.5	.3	.0	.9
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0	.6
13-16	.0	.0	.2	.0	.0	.0	.2	.0	.0	.6	.5	.1	.0	1.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.1	5.0	2.2	.0	.0	11.6	.3	6.0	10.3	3.7	.3	.0	20.5

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.5	.2	.0	.0	.0	.0	.7	.1	.1	.0	.0	.0	.0	.1	
1-2	.0	3.1	2.5	.0	.0	.0	5.6	.0	1.8	.1	.0	.0	.0	1.8	
3-4	.0	.8	2.9	.5	.0	.0	4.3	.0	1.2	2.3	.3	.0	.0	3.7	
5-6	.0	.2	2.4	1.1	.0	.0	3.7	.0	.1	.5	.3	.3	.0	1.2	
7	.0	.0	1.4	.9	.0	.0	2.4	.0	.0	1.7	.0	.0	.0	1.7	
8-9	.0	.0	.0	2.1	.5	.0	2.6	.0	.0	.0	.3	.3	.0	.7	
10-11	.0	.0	.0	.8	.3	.0	1.1	.0	.0	.0	.6	.0	.0	.6	
12	.0	.0	.3	.2	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.3	.3	.2	.0	.7	.0	.0	.0	.3	.0	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	4.3	9.8	6.0	.9	.0	21.6	.1	3.0	4.6	1.8	.6	.0	10.2	98.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.7	2.4	.0	.0	.0	.0	5.1	
1-2	1.6	15.8	7.5	.0	.0	.0	24.9	
3-4	.5	6.7	19.0	1.6	.0	.0	27.8	
5-6	.0	2.7	9.6	4.3	.3	.0	16.8	
7	.0	.3	7.5	4.3	.3	.0	12.3	
8-9	.0	.0	.0	3.2	1.3	.0	4.5	
10-11	.0	.0	.3	2.9	.5	.0	3.7	
12	.0	.0	.5	.8	.3	.3	1.9	
13-16	.0	.0	1.1	1.1	.3	.0	2.4	
17-19	.0	.0	.0	.3	.0	.3	.5	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.8	27.8	45.5	18.4	2.9	.5	100.0	374

PERIOD: (OVER-ALL) 1951-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	2.7	9.0	7.0	3.9	1.9	3.6	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	120	5
6-7	.0	.0	3.6	4.4	4.4	5.6	2.9	1.5	3.9	.5	1.0	.0	.2	.0	.0	.0	.0	.0	.0	115	9
8-9	.0	.0	.7	1.7	4.6	2.4	1.9	1.7	1.0	1.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	64	9
10-11	.0	1.2	2.2	1.0	1.5	1.5	1.2	1.0	3.2	.5	.5	.0	.0	.5	.0	.0	.0	.0	.0	58	10
12-13	.0	.0	1.9	.2	.0	1.2	.0	.0	.7	.5	.7	.0	.0	.0	.0	.0	.0	.0	.0	22	9
>13	.0	.0	.0	1.2	.5	1.0	.2	.5	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	16	9
MODE	.5	.5	.0	1.5	.0	.0	.2	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	17	6
TOTAL	2	18	72	70	65	56	42	21	58	11	12	2	1	2	0	0	0	0	0	412	8
PCT	.5	4.4	17.5	17.0	15.8	13.6	10.2	5.1	9.2	2.7	2.9	.5	.2	.5	.0	.0	.0	.0	.0	100.0	

OCTOBER

PERIOD: (PRIMARY) 1901-1977
(OVER-ALL) 1857-1977

AREA 0025 AUCKLAND WEST
35.9S 173.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	6.1	5.9	3.4	.0	.0	.0	.0	15.4	1.6	2.5	.9	.0	.7		.0	79.8
NE	2.8	10.0	2.5	.0	.0	.0	.0	14.0	3.1	.0	.0	.0	1.2		.0	81.6
E	4.9	3.6	.0	.0	.0	.0	.0	8.4	3.1	.0	.0	.0	.0		.0	88.4
SE	4.9	4.9	9.8	.0	.0	.0	.0	19.6	2.5	.0	.0	.0	2.5		.0	75.5
S	1.5	3.1	.8	.0	.0	.0	.0	5.4	3.1	.8	.0	.0	1.3		.0	89.4
SW	1.4	9.6	.8	.0	.0	.0	.0	11.7	2.7	.0	1.3	.0	1.4		.6	82.2
W	4.2	5.1	4.0	.0	.0	.0	.0	12.8	4.8	.7	.4	.0	3.7		.0	78.3
NW	6.8	5.8	7.1	.0	.0	.0	.0	19.7	1.6	1.6	4.5	.0	4.2		.0	68.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
TOT PCT	3.6	6.1	2.9	.0	.0	.0	.0	12.3	2.9	.7	.9	.0	1.9		.1	81.5
TOT OBS:	807															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.6	5.4	2.3	.0	.0	.0	.0	11.5	2.7	1.1	.4	.0	3.6		.0	81.6
06&09	2.8	6.0	4.6	.0	.0	.0	.0	12.9	1.4	.5	1.8	.0	.5		.0	82.9
12&15	5.1	11.4	2.3	.0	.0	.0	.0	18.8	2.3	1.1	1.1	.0	.6		.0	76.1
18&21	2.1	2.1	3.2	.0	.0	.0	.0	6.9	4.8	.0	.5	.0	2.6		.5	84.7
TOT PCT	3.7	6.0	3.1	.0	.0	.0	.0	12.3	2.7	.7	.9	.0	1.9		.1	81.5
TOT OBS:	843															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)								HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.7	6.4	5.3	.7	.3	.1		14.5	11.4	16.4	17.7	12.2	19.7	14.2	10.9	10.7	14.1
NE	.9	6.4	3.4	.2	.0	.0		11.0	9.7	11.2	14.6	5.6	9.6	12.5	13.3	8.5	10.2
E	.1	4.2	2.6	.4	.2	.0		7.5	11.2	8.4	9.2	7.1	3.1	.8	7.8	12.0	12.4
SE	.5	2.5	1.9	.9	.1	.0		5.5	11.2	5.2	1.5	10.0	.3	6.9	3.5	5.4	5.9
S	1.0	5.9	6.9	1.0	.2	.0		14.9	12.2	14.9	18.1	18.8	12.4	15.0	18.4	15.1	9.8
SW	1.3	7.0	8.4	1.3	.3	.0		18.3	12.2	19.7	19.2	16.0	27.0	19.4	9.4	15.3	17.9
W	1.4	5.6	7.0	2.1	.2	.0		16.3	13.1	12.9	10.4	17.9	14.3	19.8	16.4	24.2	13.2
NW	.4	4.1	3.8	1.0	.1	*		9.4	12.5	10.1	7.7	10.3	10.4	9.0	7.8	8.9	7.9
VAR	.0	.0	.6	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.7							2.7	.0	1.3	1.3	2.0	3.4	2.5	12.3	.0	4.7
TOT OBS	93	391	366	68	12	1	931		11.5	235	65	152	89	120	64	121	85
TOT PCT	10.0	42.0	39.3	7.3	1.3	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)							HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.5	7.2	2.0	.6	.2		14.5	11.4	16.7	14.9	13.0	12.1
NE	3.4	6.1	1.5	.0	.0		11.0	9.7	11.9	7.1	12.8	12.9
E	2.7	3.5	1.2	.2	.0		7.5	11.2	8.6	5.6	3.3	12.1
SE	1.8	2.6	.8	.3	.0		5.5	11.2	4.4	6.4	5.7	5.6
S	3.4	8.3	2.9	.4	.0		14.9	12.2	15.6	16.4	16.2	11.2
SW	4.2	9.9	3.6	.6	.0		18.3	12.2	19.6	20.0	15.9	16.4
W	3.8	7.1	4.6	.8	.0		16.3	13.1	12.3	16.6	18.6	19.7
NW	1.9	5.4	1.9	.1	.1		9.4	12.5	9.6	10.5	8.6	8.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.7						2.7	.0	1.3	2.5	6.0	1.9
TOT OBS	263	466	172	27	3	931		11.5	300	241	184	206
TOT PCT	28.2	50.1	18.5	2.9	.3		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
				WIND SPEED (KNOTS)						
00&03	1.3	4.3	41.3	45.3	6.7	.7	.3	12.1	100.0	300
06&09	2.5	6.2	39.4	41.5	8.7	1.7	.0	12.1	100.0	241
12&15	6.0	13.6	42.4	28.3	8.7	1.1	.0	10.2	100.0	184
18&21	1.9	7.3	45.6	37.9	5.3	1.9	.0	11.2	100.0	206
TOT	25	68	391	366	68	12	1	11.5		931
PCT	2.7	7.3	42.0	39.3	7.3	1.3	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.8	1.2	2.5	2.8		4.8
NE	1.1	1.0	1.9	1.0		4.8
E	2.2	.7	2.6	1.6		4.8
SE	2.3	.8	2.4	1.8		4.6
S	4.5	4.8	8.9	2.0		4.6
SW	4.3	6.5	6.1	3.4		4.4
W	5.3	3.8	7.0	5.2		4.9
NW	1.6	1.7	2.1	3.2		5.2
VAR	.0	.0	.0	.0		.0
CALM	.3	.0	.3	.5		4.6
TOT OBS	95	80	131	82	388	4.7
TOT PCT	24.5	20.6	33.8	21.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.5	.0	.0	2.1	1.2	.0	.2	.0	.2	.3	5.2	
NE	.0	.0	.3	.9	.2	.3	.3	.0	.1	.0	3.1	
E	.0	.0	.3	1.2	1.2	.3	.0	.0	.0	.0	4.3	
SE	.0	.0	.0	1.3	1.6	.5	.0	.3	.1	.0	3.7	
S	.5	.0	.3	1.7	4.3	2.0	.3	.0	.2	.0	11.1	
SW	.1	.0	.1	1.4	2.3	1.5	.8	.0	.0	.0	14.0	
W	.2	.0	1.1	2.3	4.1	1.2	.3	.3	.0	.0	12.0	
NW	.0	.0	1.4	1.1	1.4	.5	.1	.3	.0	.3	5.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	
TOT OBS	4	0	13	46	65	24	7	3	2	2	224	388
TOT PCT	1.0	.0	3.4	11.9	16.2	6.2	1.8	.8	.5	.5	57.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >30YD	* OR >0
* OR >6500	.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
* OR >5000	1.2	1.7	1.7	1.7	1.7	1.7	1.7	1.7
* OR >3500	2.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5
* OR >2000	7.4	9.4	9.6	9.6	9.6	9.6	9.6	9.6
* OR >1000	20.5	25.4	25.7	25.7	25.7	25.7	25.7	25.7
* OR >600	27.4	37.0	38.0	38.0	38.0	38.0	38.0	38.0
* OR >300	28.4	39.0	41.2	41.2	41.2	41.2	41.2	41.2
* OR >150	28.4	39.0	41.2	41.2	41.2	41.2	41.2	41.2
* OR > 0	28.9	39.5	42.5	42.5	42.5	42.5	42.5	42.5
TOTAL	117	160	172	172	172	172	172	172

TOTAL NUMBER OF OBS: 405 PCT FREQ NH <5/8: 57.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
8.0	15.6	14.3	10.6	8.3	6.2	6.7	11.3	18.2	.9	435

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.2	
1/2<1	PCP	.3	.1	.1	.0	.0	.0	.2	.0	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.2	.0	.0	.4	
	TOT %	.3	.1	.1	.0	.0	.1	.2	.2	.0	.0	1.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.1	.2	.2	.0	.0	.6	
	TOT %	.0	.0	.0	.0	.0	.1	.2	.4	.0	.0	.7	
2<5	PCP	.4	.1	.0	.0	.0	.3	.3	.3	.0	.0	1.5	
	NO PCP	.3	*	.1	.0	.1	*	.2	.3	.0	.0	1.1	
	TOT %	.7	.2	.1	.0	.1	.3	.5	.7	.0	.0	2.6	
5<10	PCP	1.3	1.0	.5	.5	.7	2.0	1.4	1.2	.0	.0	8.6	
	NO PCP	5.5	5.2	2.6	.7	4.3	6.0	4.7	3.4	.0	1.6	34.1	
	TOT %	6.8	6.3	3.1	1.2	5.0	8.0	6.1	4.6	.0	1.6	42.7	
10+	PCP	.1	.2	.0	.5	.1	.0	.2	.2	.0	.0	1.4	
	NO PCP	5.6	3.2	3.7	3.4	10.8	10.8	9.6	3.3	.0	.7	51.2	
	TOT %	5.7	3.4	3.7	3.9	10.9	10.8	9.8	3.6	.0	.7	52.6	
	TOT OBS												803
	TOT PCT	13.6	9.9	7.0	5.1	16.1	19.4	17.0	9.4	.0	2.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.0	.1	.2	.0		.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.0	.0	.0	.0	.0	.1	.2	.0	.0	.4	
1/2<1	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.1	.1	.0	.0	.0	.1	.0	.1	.0		.4	
	11-21	.0	.0	.1	.0	.0	.0	.1	.0	.0		.2	
	22+	.1	.0	.0	.0	.0	.0	.1	.1	.0		.4	
	TOT %	.3	.1	.1	.0	.0	.1	.2	.2	.0	.0	1.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.2	.2	.0		.5	
	11-21	.0	.0	.0	.0	.0	.1	.1	.1	.0		.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.1	.4	.4	.0	.0	.9	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.1	.0	.1	.1	.0		.5	
	11-21	.6	*	.1	.0	.0	.3	.3	.4	.0		1.7	
	22+	.1	.0	.0	.0	.0	*	.1	.2	.0		.4	
	TOT %	.7	.2	.1	.0	.1	.3	.5	.6	.0	.0	2.6	
5<10	0-3	.9	.7	.0	.0	.7	1.4	1.2	.4	.0	1.6	6.9	
	4-10	3.1	3.5	1.5	.5	2.8	3.3	1.2	1.5	.0		17.4	
	11-21	2.2	1.9	.9	.5	1.1	3.0	2.9	2.0	.0		16.1	
	22+	.4	.1	.6	.2	.3	.3	1.2	.6	.0		4.0	
	TOT %	6.8	6.2	3.1	1.2	5.0	8.0	6.1	4.5	.0	1.6	42.4	
10+	0-3	.7	.1	.1	.5	.3	.1	.2	*	.0	.7	2.8	
	4-10	2.8	2.0	2.1	1.7	3.5	4.2	4.1	1.8	.0		22.0	
	11-21	2.1	1.1	1.3	1.3	6.0	5.3	4.3	1.3	.0		22.7	
	22+	.5	.2	.1	.5	1.0	1.3	1.1	.4	.0		5.1	
	TOT %	5.8	3.4	3.6	4.0	10.8	10.9	9.9	3.6	.0	.7	52.7	
	TOT OBS												809
	TOT PCT	13.7	9.6	7.0	5.2	15.9	19.4	17.1	9.6	.0	2.3	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.8	.0	3.1	10.1	13.2	5.4	1.6	.8	.0	.0	34.9	65.1	129
06&09	1.6	.0	3.1	11.0	15.7	10.2	1.6	1.6	.8	1.6	47.2	52.8	127
12&15	1.7	.0	1.7	11.9	11.9	1.7	1.7	.0	.0	.0	30.5	69.5	59
18&21	1.0	.0	3.8	15.4	20.2	3.8	1.9	.0	1.0	.0	47.1	52.9	104
TOT	5	0	13	50	65	25	7	3	2	2	172	247	419
PCT	1.2	.0	3.1	11.9	15.5	6.0	1.7	.7	.5	.5	41.1	58.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.8	1.9	1.2	42.5	53.7	259
06&09	.9	1.8	.0	4.1	33.8	59.4	219
12&15	.6	1.7	.6	3.3	55.0	38.9	180
18&21	.0	.0	1.1	2.7	39.4	56.9	188
TOT	3	9	8	23	357	446	846
PCT	.4	1.1	.9	2.7	42.2	52.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.8	4.0	14.3	21.4	64.3	126
06&09	1.6	4.9	17.2	32.0	50.8	122
12&15	1.8	3.6	16.4	16.4	67.3	55
18&21	1.0	4.9	20.6	27.5	52.0	102
TOT	5	18	69	103	233	405
PCT	1.2	4.4	17.0	25.4	57.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
65/69	.0	.2	.0	.0	.8	2.1	1.2	.4	23	4.8
60/64	.0	.0	.0	1.7	5.2	9.1	13.3	13.5	206	42.7
55/59	.0	.2	.4	.4	8.3	13.5	14.7	11.6	238	49.4
50/54	.0	.0	.0	.4	.4	.4	.8	.8	14	2.9
TOTAL	0	2	2	13	72	121	145	127	482	100.0
PCT	.0	.4	.4	2.7	14.9	25.1	30.1	26.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
.7	.5	.2	.1	.5	.6	1.2	.9	.0	.0
7.1	3.3	3.9	2.1	5.2	7.1	7.4	5.4	.0	1.0
3.5	1.8	1.9	4.7	11.7	11.8	10.8	2.9	.0	.2
.2	.0	.2	.7	.7	.1	.8	.2	.0	.0
11.8	5.5	6.3	7.7	18.2	19.5	20.3	9.4	.0	1.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	78	70	65	61	57	55	54	61.1	314
06&09	76	72	64	59	55	52	45	59.7	242
12&15	74	64	63	57	52	49	49	57.4	190
18&21	72	64	64	59	54	50	46	58.7	211
TOT	78	68	64	59	54	51	45	59.5	957

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.6	21.2	30.5	23.8	17.9	77	131
06&09	.0	2.7	15.3	22.7	28.7	30.7	82	150
12&15	.0	.0	16.0	18.7	33.3	32.0	84	75
18&21	.0	3.2	6.5	25.8	34.7	29.8	84	124
TOT	0	18	75	126	147	134	81	500

OCTOBER

PERIOD: (PRIMARY) 1901-1977
(OVER-ALL) 1857-1977

AREA 0025 AUCKLAND WEST
35.9S 173.1E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.6	.0	.0	.1	5	.0	.7
11/13	.0	.0	.0	.4	.3	.0	.1	.0	6	.0	.9
9/10	.0	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
7/8	.0	.0	.0	.0	.4	.6	.0	.1	8	.0	1.2
6	.0	.0	.0	.0	.1	.4	.0	.0	4	.0	.6
5	.0	.0	.3	.4	3.1	.7	.0	.0	31	.3	4.2
4	.0	.1	.3	1.6	4.7	1.5	.0	.0	56	.0	8.2
3	.0	.0	.0	.6	3.5	.4	.0	.0	31	.0	4.5
2	.0	.1	.0	2.3	5.8	.6	.0	.0	61	.1	8.8
1	.0	.1	.4	3.2	7.0	.4	.0	.0	77	.1	11.1
0	.0	.0	1.0	9.8	4.4	.0	.0	.0	104	.3	14.9
-1	.0	.1	1.6	9.8	2.3	.0	.0	.0	95	.1	13.7
-2	.0	.1	1.2	6.7	1.2	.0	.0	.0	63	.0	9.2
-3	.0	.0	2.6	4.4	.4	.0	.0	.0	51	.0	7.5
-4	.0	.0	2.0	2.6	.0	.0	.0	.0	32	.0	4.7
-5	.0	.3	2.3	1.5	.0	.0	.0	.0	28	.0	4.1
-6	.0	.4	.9	1.0	.1	.0	.0	.0	17	.0	2.5
-7/-8	.1	.3	.7	.3	.0	.0	.0	.0	10	.0	1.5
-9/-10	.0	.1	.3	.0	.0	.0	.0	.0	3	.0	.4
-11/-13	.0	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	13	95	307	233	32	1	2	684	7	677
PCT	.1	1.9	13.9	44.9	34.1	4.7	.1	.3	100.0	1.0	99.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	1.2	.0	.0	.0	.0	2.0
1-2	.3	1.0	2.2	.0	.0	.0	3.5
3-4	.0	.9	1.3	.0	.0	.0	2.2
5-6	.0	.8	.8	.2	.0	.0	1.9
7	.0	.0	1.5	.0	.0	.0	1.5
8-9	.0	.0	.5	.0	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	3.9	6.3	.2	.0	.0	11.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.6
1-2	.0	1.3	.0	.0	.0	.0	1.3
3-4	.0	.4	.1	.0	.0	.0	.4
5-6	.0	.0	.4	.1	.0	.0	.4
7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.0	.9	.1	.0	.0	3.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	1.8	.3	.0	.0	.0	2.1
3-4	.0	.7	1.5	.0	.0	.0	2.2
5-6	.0	.0	.8	.0	.3	.0	1.1
7	.0	.0	.4	.0	.3	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.8	3.1	.0	.6	.0	6.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3
1-2	.0	1.1	1.3	.0	.0	.0	2.5
3-4	.0	.5	.7	.0	.0	.0	1.2
5-6	.0	.6	1.0	.0	.1	.0	1.7
7	.0	.0	.1	.0	.1	.0	.1
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.2	3.1	.4	.1	.0	6.2

PERIOD: (OVER-ALL) 1963-1977

OCTOBER

TABLE 18 (CONT)

AREA 0025 AUCKLAND WEST 35.9S 173.1E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.0	.2	.0	.0	.0	1.6	.0	.7	.1	.0	.0	.0	.8
1-2	.0	2.9	1.8	.0	.0	.0	4.7	.0	2.3	2.5	.0	.0	.0	4.8
3-4	.0	1.6	6.7	.3	.0	.0	8.6	.0	2.6	5.4	.0	.0	.0	8.0
5-6	.0	.0	1.9	2.1	.2	.0	4.2	.0	1.0	1.9	.0	.3	.0	3.2
7	.0	.6	.7	.0	.2	.0	1.6	.0	.0	1.0	.7	.0	.0	1.7
8-9	.0	.2	.8	.2	.0	.0	1.3	.0	.4	.1	.3	.0	.0	.7
10-11	.0	.3	.3	.0	.0	.0	.6	.0	.0	.0	.1	.4	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	6.6	12.4	2.6	.4	.0	22.4	.0	7.0	11.4	1.2	.7	.0	20.3

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.1	1.0	.0	.0	.0	.0	1.0	
1-2	.3	2.9	1.2	.0	.0	.0	4.4	.0	2.4	1.7	.0	.0	.0	4.1	
3-4	.0	2.2	3.4	.2	.0	.0	5.9	.0	.6	.2	.4	.0	.0	1.2	
5-6	.0	.2	3.4	.9	.0	.0	4.5	.0	.1	1.0	1.2	.0	.0	2.3	
7	.0	.3	.8	.8	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.5	.3	.0	.0	.8	.0	.0	.1	.3	.0	.0	.4	
10-11	.0	.0	.0	1.0	.2	.0	1.3	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.2	.2	.0	.4	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	5.9	9.4	3.5	.4	.0	19.5	.1	4.0	3.1	1.9	.0	.0	9.1	98.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.3	4.7	.3	.0	.0	.0	8.3	
1-2	.9	15.7	10.9	.0	.0	.0	27.5	
3-4	.0	9.5	19.2	.9	.0	.0	29.6	
5-6	.0	2.7	11.2	4.4	.9	.0	19.2	
7	.0	.9	4.7	1.5	.6	.0	7.7	
8-9	.0	.6	2.4	1.5	.0	.0	4.4	
10-11	.0	.3	.3	1.2	.6	.0	2.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.3	.0	.0	.0	.3	
17-19	.0	.0	.0	.3	.3	.0	.6	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.1	34.3	49.4	9.8	2.4	.0	100.0	338

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.4	3.8	7.3	4.6	4.6	3.5	1.4	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	104	5
6-7	.0	.8	3.0	6.8	4.9	3.0	2.2	.3	2.7	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	89	7
8-9	.0	.3	1.6	3.3	5.7	4.3	4.1	2.2	1.4	.8	1.1	.0	.0	.0	.0	.0	.0	.0	.0	91	9
10-11	.0	1.4	.8	1.4	1.9	1.1	1.4	.5	1.1	1.1	.5	.0	.0	.3	.0	.0	.0	.0	.0	42	9
12-13	.0	.0	1.6	1.1	.3	.5	.8	.8	.0	.0	.3	.5	.0	.0	.0	.0	.0	.0	.0	22	9
>13	.0	.0	.0	.5	.5	1.1	.0	.0	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	9
INDET	.8	.0	.0	.5	.3	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	5
TOTAL	12	23	53	67	67	52	37	15	22	11	7	2	0	1	0	0	0	0	0	389	7
PCT	3.3	6.2	14.4	18.2	18.2	14.1	10.0	4.1	6.0	3.0	1.9	.5	.0	.3	.0	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	6.7	3.0	6.1	.0	.0	.0	.0	15.9	3.4	1.2	8.5	.0	.0		.0	71.0
NE	14.2	.5	4.2	.0	.0	.0	.0	18.9	2.1	.0	1.1	2.1	.0		.0	75.8
E	4.1	3.4	2.7	.0	.0	.0	.0	10.2	.0	.0	.0	.0	.0		.0	89.8
SE	3.4	3.9	.0	.0	.0	.0	.0	12.3	.0	.0	.0	.0	.0		.0	87.7
S	1.2	1.0	.0	.0	.0	.0	.0	2.2	.0	1.0	1.0	.0	1.0		.0	95.0
SW	1.8	1.6	1.6	.0	.0	.0	.0	4.1	.8	.4	.4	.0	.8		.0	93.9
W	2.2	2.0	1.5	.0	.0	.0	.0	5.7	.7	1.2	1.5	.0	2.9		.0	88.5
NW	6.1	1.7	5.2	.0	.0	.0	.0	13.0	1.7	.3	4.1	.0	4.6		.0	76.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	4.8	.0	.0	.0	.0	4.8	.0	.0	.0	.0	.0		.0	95.2
TOT PCT	4.3	1.9	2.6	.0	.0	.0	.0	8.7	1.1	.6	2.2	.2	1.4		.0	86.1
TOT OBS:	646															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.1	1.1	.6	.0	.0	.0	.0	6.3	1.7	.0	2.3	.0	2.3		.0	87.4
06&09	3.0	2.0	3.0	.0	.0	.0	.0	8.0	1.0	.0	3.5	.5	1.5		.0	85.4
12&15	5.6	2.1	2.8	.0	.0	.0	.0	10.5	1.4	2.1	.7	.0	.0		.0	86.0
18&21	4.1	2.7	4.8	.0	.0	.0	.0	11.6	.0	.7	2.7	.0	1.4		.0	83.6
TOT PCT	4.4	2.0	2.7	.0	.0	.0	.0	8.9	1.1	.6	2.4	.2	1.4		.0	85.7
TOT OBS:	663															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	4.9	5.2	1.4	.1	.0		12.2	13.1	13.2	28.4	10.2	8.2	12.9	8.1	15.4	5.0
NE	.1	3.3	2.8	.6	*	.0		6.8	12.3	6.4	4.5	9.0	5.7	8.5	.0	6.1	5.0
E	.4	3.1	1.7	.9	.1	.0		6.2	12.3	8.0	2.3	5.4	.0	3.2	9.7	10.2	5.6
SE	.8	3.0	2.6	.5	.0	.0		6.9	10.7	5.4	5.7	6.6	7.4	6.4	10.3	9.6	6.9
S	1.2	7.1	6.1	.7	.0	.0		15.2	11.1	14.7	25.0	14.5	18.0	15.3	23.4	12.4	12.5
SW	.6	5.7	11.1	2.3	.1	.0		19.8	14.4	18.2	23.9	23.5	29.1	18.4	12.9	13.8	24.4
W	.5	6.3	7.1	2.0	.2	.0		16.1	13.5	19.5	4.5	14.5	13.5	15.9	19.4	16.5	14.4
NW	.4	3.6	7.7	1.7	.0	.0		13.4	14.4	13.0	5.7	15.7	13.1	14.4	9.7	9.8	21.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.3							3.3	.0	1.6	.0	.6	4.9	5.1	6.5	6.5	5.0
TOT OBS	61	278	335	76	4	0	752		12.6	190	22	167	61	118	31	123	40
TOT PCT	8.1	37.0	44.3	10.1	.5	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)							HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.6	6.3	2.9	.7	.0		12.2	13.1	14.7	9.6	11.9	12.9
NE	1.5	3.6	1.5	.2	.0		6.8	12.3	6.3	8.1	6.7	5.8
E	2.2	2.3	1.0	.6	.0		6.2	12.3	7.4	3.9	4.5	9.0
SE	2.2	3.5	1.2	.1	.0		6.9	10.7	5.4	6.8	7.2	8.9
S	3.9	8.3	3.0	.0	.0		15.2	11.1	15.8	15.9	16.9	12.4
SW	1.8	10.9	6.1	1.0	.0		19.8	14.4	18.8	25.0	17.3	16.3
W	2.9	7.5	4.8	.8	.0		16.1	13.5	17.9	14.3	16.6	16.0
NW	1.0	7.5	4.7	.2	.0		13.4	14.4	12.3	15.0	13.4	12.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.3						3.3	.0	1.4	1.8	5.4	6.1
TOT OBS	141	377	186	28	0	752		12.6	212	228	149	163
TOT PCT	21.4	50.1	24.7	3.7	.0		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.4	5.2	36.3	44.3	11.8	.9	.0	13.1	100.0	212
06&09	1.8	3.1	38.6	45.6	10.5	.4	.0	13.2	100.0	228
12&15	5.4	10.1	34.2	39.6	10.1	.7	.0	11.4	100.0	149
18&21	6.1	1.8	38.0	46.6	7.4	.0	.0	12.0	100.0	163
TOT	25	36	278	333	76	4	0	12.6		752
PCT	3.3	4.8	37.0	44.3	10.1	.5	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.9	2.7	4.0	5.7		5.4
NE	1.1	1.0	2.3	3.6		5.8
E	1.0	.7	2.0	2.0		5.5
SE	1.9	.6	1.4	1.2		4.6
S	6.0	2.7	5.4	1.4		4.0
SW	4.2	4.0	7.6	2.6		4.6
W	3.9	3.7	5.7	3.2		4.8
NW	2.5	1.6	3.8	4.8		5.4
VAR	.0	.0	.0	.0		.0
CALM	1.1	.5	.5	.9		4.3
TOT OBS	109	77	144	112	442	4.9
TOT PCT	24.7	17.4	32.6	25.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.7	.3	.2	2.2	2.5	1.0	.0	.0	.0	.0	8.2	
NE	.2	.1	.5	.8	1.6	.5	.0	.0	.2	.0	4.1	
E	.0	.0	.6	.4	1.6	.2	.2	.0	.0	.0	2.5	
SE	.8	.0	.1	.5	1.2	.2	.0	.0	.0	.0	3.1	
S	.0	.0	.0	.7	2.4	1.3	.6	.2	.2	.0	10.2	
SW	.2	.0	.2	1.0	3.7	2.0	.3	.1	.1	.0	10.6	
W	.0	.2	.5	1.2	3.3	.9	.2	.2	.0	.0	10.1	
NW	.0	.1	.7	1.8	2.0	1.5	.5	.0	.5	.0	9.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.2	.0	.0	.0	.2	.2	.0	.0	.0	.0	2.3	
TOT OBS	6	3	12	39	82	35	8	2	4	0	251	442
TOT PCT	1.4	.7	2.7	8.8	18.6	7.9	1.8	.5	.9	.0	56.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >5000	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
= OR >3500	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
= OR >2000	9.8	11.1	11.1	11.1	11.1	11.1	11.1	11.1
= OR >1000	23.3	29.3	29.6	29.8	29.8	29.8	29.8	29.8
= OR >600	27.1	36.4	37.8	38.4	38.4	38.4	38.4	38.4
= OR >300	28.0	38.9	40.4	41.1	41.1	41.1	41.1	41.1
= OR >150	28.2	39.6	41.1	41.8	41.8	41.8	41.8	41.8
= OR > 0	28.2	39.8	41.8	42.7	42.9	42.9	43.1	43.1
TOTAL	127	179	188	192	193	193	194	194

TOTAL NUMBER OF OBS: 450 PCT FREQ NH <5/8: 56.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
7.9	16.7	12.9	10.2	8.5	5.8	8.5	10.8	18.1	1.0	480

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
<1/2	NO PCP	.4	.0	.0	.0	.0	.0	.0	.2	.0	.0	.6	
	TOT %	.5	.0	.0	.0	.0	.0	.0	.2	.0	.0	.8	
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	NO PCP	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	TOT %	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	PCP	.3	.2	.0	.0	.0	.2	.1	*	.0	.0	.8	
1<2	NO PCP	.2	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3	
	TOT %	.4	.2	.0	.0	.0	.2	.1	.2	.0	.0	1.1	
	PCP	.3	.3	.0	.2	.0	.0	.0	.0	.0	.2	.9	
2<5	NO PCP	.0	.0	.0	.0	.2	.0	.0	.2	.0	.2	.5	
	TOT %	.3	.3	.0	.2	.2	.0	.0	.2	.0	.3	1.4	
	PCP	.5	.9	.6	.3	.2	.5	.8	1.0	.0	.0	4.6	
5<10	NO PCP	2.4	.5	.9	.5	2.8	4.3	4.3	3.1	.0	.5	19.3	
	TOT %	2.9	1.4	1.5	.7	3.1	4.8	5.1	4.0	.0	.5	24.0	
	PCP	.8	*	.0	.3	.1	.2	.0	.7	.0	.0	2.2	
10+	NO PCP	7.5	5.3	4.2	4.8	12.8	14.7	10.5	8.0	.0	2.5	70.3	
	TOT %	8.2	5.4	4.2	5.1	12.9	14.9	10.5	8.7	.0	2.5	72.4	
	TOT OBS												646
	TOT PCT	12.7	7.4	5.7	6.0	16.1	19.8	15.8	13.4	.0	3.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	11-21	.4	.0	.0	.0	.0	.0	.0	.1	.0		.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.5	.0	.0	.0	.0	.0	.0	.2	.0	.0	.8	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.2	.1	.0	.0	.0	.0	.0	.0	.0		.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.2	.2	.0	.0	.0	.0	.1	*	.0		.5	
	11-21	.2	.0	.0	.0	.0	.2	.0	.2	.0		.5	
	22+	.1	*	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.4	.2	.0	.0	.0	.2	.1	.2	.0	.0	1.1	
	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	.5	
2<5	4-10	.2	.2	.0	.0	.0	.0	.0	.0	.0		.3	
	11-21	.0	.2	.0	.0	.2	.0	.0	.2	.0		.5	
	22+	.0	.0	.0	.2	.0	.0	.0	.2	.0		.3	
	TOT %	.3	.3	.0	.2	.2	.0	.0	.3	.0	.3	1.5	
	0-3	.1	.0	.0	.2	.4	.5	.6	.1	.0	.5	2.3	
5<10	4-10	.7	.5	.3	.1	1.2	1.8	2.0	1.4	.0		8.0	
	11-21	1.1	.8	.5	.4	1.3	1.8	1.7	2.0	.0		9.7	
	22+	1.0	.1	.6	.1	.2	.7	.7	.5	.0		3.9	
	TOT %	2.9	1.4	1.5	.7	3.0	4.8	5.1	4.0	.0	.5	23.9	
	0-3	.4	.2	.2	.6	.9	.2	.0	.2	.0	2.5	5.1	
10+	4-10	3.6	2.5	2.5	2.3	6.2	4.1	3.9	2.0	.0		27.2	
	11-21	3.7	2.0	1.1	2.0	5.4	8.9	5.2	5.4	.0		33.8	
	22+	.5	.6	.5	.2	.3	1.8	1.4	1.1	.0		6.3	
	TOT %	8.2	5.4	4.2	5.1	12.8	15.0	10.5	8.7	.0	2.5	72.4	
	TOT OBS												648
	TOT PCT	12.7	7.3	5.7	6.0	16.0	19.9	13.7	13.5	.0	3.2	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.8	1.6	1.6	7.9	19.0	7.1	2.4	1.6	.8	.0	42.9	57.1	126
06&09	2.1	.0	1.4	6.3	18.9	8.4	2.1	.0	.7	.0	39.9	60.1	143
12&15	1.1	.0	2.3	9.2	12.6	6.9	.0	.0	1.1	.0	33.3	66.7	87
18&21	1.0	1.0	5.7	11.4	21.0	7.6	2.9	.0	1.0	.0	51.4	48.6	105
TOT	6	3	12	39	84	35	9	2	4	0	194	267	461
PCT	1.3	.7	2.6	8.5	18.2	7.6	2.0	.4	.9	.0	42.1	57.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.6	.0	2.3	1.1	21.6	74.4	176
06&09	1.0	.5	.5	2.5	20.0	75.5	200
12&15	.0	.0	.7	.7	28.7	69.9	143
18&21	1.4	.7	.7	2.1	28.1	67.1	146
TOT	5	2	7	11	160	480	665
PCT	.8	.3	1.1	1.7	24.1	72.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <5OVD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.8	4.0	12.9	30.6	56.5	124
06&09	2.1	3.5	10.6	29.8	59.6	141
12&15	1.2	3.7	13.6	22.2	64.2	81
18&21	1.0	7.7	19.2	32.7	48.1	104
TOT	6	21	62	132	256	450
PCT	1.3	4.7	13.8	29.3	56.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.2	.0	.0	.2	.0	.0	2	.4
70/74	.0	.0	.0	.0	.2	.4	.4	.4	7	1.3
65/69	.0	.0	.2	.7	.5	3.8	3.2	6.1	81	14.5
60/64	.0	.0	.2	1.1	6.4	12.0	10.4	21.6	334	59.6
55/59	.0	.0	.0	.4	5.7	6.3	6.4	5.2	134	23.9
50/54	.0	.0	.0	.0	.2	.2	.0	.0	2	.4
TOTAL	0	0	3	12	73	127	159	186	560	100.0
PCT	.0	.0	.5	2.1	13.0	22.7	28.4	33.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.2	.2	.0	.0
.0	.0	.0	.0	.0	.3	.2	.4	.0	.4
4.6	1.1	.4	.6	1.6	1.7	.8	3.3	.0	.4
9.2	4.5	4.4	3.3	7.5	10.3	9.7	8.9	.0	1.8
.9	1.0	1.6	2.9	5.6	4.6	5.0	1.3	.0	1.1
.0	.0	.0	.0	.2	.2	.0	.0	.0	.0
14.7	6.6	6.4	6.9	14.9	17.0	15.8	14.1	.0	3.6

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	77	75	70	63	58	55	55	63.5	210
06&09	74	72	68	62	57	55	54	62.2	228
12&15	70	68	66	61	55	54	54	60.7	169
18&21	68	67	66	61	56	55	52	60.8	161
TOT	77	70	68	62	57	55	52	62.0	768

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.9	18.3	22.6	25.0	26.2	79	164
06&09	.0	1.1	14.3	20.0	26.9	37.7	83	175
12&15	.0	.0	3.8	23.6	30.2	42.5	86	106
18&21	.0	.0	11.6	29.6	33.3	29.5	83	129
TOT	0	15	74	190	169	192	82	574

NOVEMBER

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1865-1977

AREA 0025 AUCKLAND WEST
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
11/13	.0	.0	.4	.2	.2	.0	.0	4	.0	.8
9/10	.0	.0	.2	.6	.2	.2	.2	7	.0	1.4
7/8	.0	.2	.2	1.7	.4	.2	.0	14	.2	2.5
6	.0	.6	.8	.6	.4	.0	.0	12	.0	2.3
5	.0	.0	2.5	3.1	.4	.0	.0	31	.4	5.6
4	.0	.2	4.1	1.6	.2	.2	.0	32	.4	5.8
3	.0	.6	4.1	1.6	.0	.0	.0	32	.0	6.2
2	.0	.6	10.1	1.6	.8	.0	.0	67	.8	12.2
1	.2	2.7	8.5	1.6	.0	.0	.0	67	.2	12.8
0	.2	3.3	10.7	1.7	.0	.0	.0	82	.2	15.7
-1	.4	3.5	6.2	1.0	.0	.0	.0	57	.2	10.9
-2	.2	3.7	1.9	.4	.2	.0	.0	33	.2	6.2
-3	.6	3.3	1.9	.2	.0	.0	.0	31	.6	5.4
-4	1.0	2.7	1.0	.4	.0	.0	.0	26	.0	5.0
-5	.6	.4	.6	.0	.0	.0	.0	8	.0	1.6
-6	.2	.8	.0	.0	.0	.0	.0	5	.0	1.0
-7/-8	.2	.2	.2	.0	.0	.0	.0	3	.0	.6
-9/-10	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
-11/-13	.2	.6	.0	.0	.0	.0	.0	4	.0	.8
TOTAL	19	121	275	83	14	3	1	516	16	500
PCT	3.7	23.6	53.3	16.1	2.7	.6	.2	100.0	3.1	96.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.7	.0	.0	.0	.0	1.4
1-2	.2	3.2	1.2	.0	.0	.0	4.6
3-4	.0	1.9	3.6	.3	.0	.0	5.8
5-6	.0	.3	2.6	.0	.0	.0	2.8
7	.0	.0	.9	.8	.0	.0	1.7
8-9	.0	.0	.2	.3	.0	.0	.5
10-11	.0	.0	.0	.9	.0	.0	.9
12	.0	.3	.0	.3	.0	.0	.5
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	6.4	8.5	2.6	.0	.0	18.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1
1-2	.3	2.8	.3	.0	.0	.0	3.4
3-4	.0	.3	.7	.0	.0	.0	1.1
5-6	.0	.0	.9	.3	.0	.0	1.2
7	.0	.3	.7	.0	.0	.0	.9
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.3	.3	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.3	.0	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.3	.0	.0	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.5	3.5	.9	.0	.0	8.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5
1-2	.0	1.2	.2	.0	.0	.0	1.4
3-4	.0	.0	.7	.3	.0	.0	.9
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.4	.3	.0	.0	.7
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.3	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.7	1.9	1.3	.0	.0	4.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3
1-2	.0	1.4	.6	.0	.0	.0	2.0
3-4	.0	.7	.6	.0	.0	.0	1.3
5-6	.0	.1	.5	.3	.0	.0	.9
7	.0	.0	.3	.3	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.2	2.0	.5	.0	.0	5.0

PERIOD: (OVER-ALL) 1963-1977 NOVEMBER AREA 0025 AUCKLAND WEST
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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.3	.0	.0	.0	.0	1.1
1-2	.3	4.6	1.7	.0	.0	.0	6.6
3-4	.2	2.6	2.2	.3	.0	.0	5.3
5-6	.0	.2	2.8	.0	.0	.0	3.0
7	.0	.2	.6	.0	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	7.9	7.5	.3	.0	.0	16.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.5
1-2	.0	2.4	1.2	.0	.0	.0	3.6
3-4	.1	1.6	1.6	.1	.0	.0	3.4
5-6	.0	.1	3.3	.6	.0	.0	4.0
7	.0	.1	1.1	.3	.0	.0	1.5
8-9	.0	.0	.5	.3	.1	.0	.9
10-11	.0	.0	.1	.5	.0	.0	.6
12	.0	.0	.0	.3	.1	.0	.4
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.4	7.9	2.4	.1	.0	15.2

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	2.5	.8	.0	.0	.0	3.3
3-4	.0	1.1	2.3	.2	.0	.0	3.6
5-6	.0	.7	2.0	1.0	.0	.0	3.8
7	.0	.2	1.7	.0	.0	.0	1.9
8-9	.0	.0	.3	.2	.2	.0	.7
10-11	.0	.0	.0	.5	.0	.0	.5
12	.0	.0	.0	.2	.2	.0	.4
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.7	7.1	2.4	.4	.0	14.6

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.1	.0	.0	.0	.0	.4	
1-2	.1	1.0	2.0	.0	.0	.0	3.1	
3-4	.0	1.7	3.9	.0	.0	.0	5.6	
5-6	.0	.0	2.4	.3	.0	.0	2.7	
7	.0	.0	.9	.3	.0	.0	1.2	
8-9	.0	.0	.3	.6	.0	.0	.9	
10-11	.0	.0	.0	.6	.0	.0	.6	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	2.8	9.6	1.7	.0	.0	14.5	97.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.1	2.4	.0	.0	.0	.0	7.5	
1-2	1.3	18.9	8.0	.0	.0	.0	28.3	
3-4	.3	9.9	15.5	1.1	.0	.0	26.7	
5-6	.0	1.3	14.7	2.4	.0	.0	18.4	
7	.0	.6	6.7	1.9	.0	.0	9.3	
8-9	.0	.0	1.3	1.9	.3	.0	3.5	
10-11	.0	.0	.5	3.2	.0	.0	3.7	
12	.0	.3	.0	.8	.3	.0	1.3	
13-16	.0	.0	.3	.5	.0	.0	.8	
17-19	.0	.0	.0	.3	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.3	.0	.0	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.7	33.6	47.2	12.0	.5	.0	100.0	375

PERIOD: (OVER-ALL) 1958-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	5.9	9.3	5.7	4.9	1.0	1.3	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	116	5
6-7	.0	1.0	2.6	5.1	6.2	2.8	3.9	.8	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	97	7
8-9	.0	.3	2.1	4.4	3.6	3.9	2.3	1.3	1.0	.3	.8	.0	.0	.0	.0	.0	.0	.0	.0	77	8
10-11	.0	.3	.8	.5	1.3	1.5	1.8	2.1	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	44	10
12-13	.0	.0	1.5	.3	.0	.5	.0	.5	1.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	8
>13	.0	.0	.0	.8	1.0	.5	.5	.5	1.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	20	11
INDET	1.3	.0	.3	.3	1.5	1.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	5
TOTAL	8	29	64	66	72	44	39	23	35	4	4	1	0	0	0	0	0	0	0	389	7
PCT	2.1	7.5	16.5	17.0	18.5	11.3	10.0	5.9	9.0	1.0	1.0	.3	.0	.0	.0	.0	.0	.0	.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1921-1977
(OVER-ALL) 1857-1977

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	10.1	2.0	2.0	.0	.0	.0	.0	14.0	2.3	.0	3.9	.0	2.6		.0	77.2
NE	6.8	2.4	3.9	.0	.0	.0	.0	13.2	.0	.0	3.9	.0	.0		.0	82.9
E	7.9	11.6	2.1	.0	.0	.0	.0	21.6	1.7	.0	4.1	.0	3.3		.0	69.3
SE	2.6	2.1	2.6	.0	.0	.0	.0	7.3	2.1	.0	1.0	.0	4.1		.0	85.5
S	4.0	1.8	.9	.0	.0	.0	.0	5.7	1.8	.0	.0	.0	.9		.7	91.0
SW	2.5	5.3	1.4	.0	.0	.0	.0	7.8	2.8	.0	1.1	.0	.9		.2	87.2
W	2.6	2.6	1.6	.0	.0	.0	.0	6.0	3.1	1.0	5.7	.0	1.8		.0	82.4
NW	11.0	.5	5.2	.0	.0	.0	.0	16.2	4.7	.0	4.2	.0	.0		.0	74.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	3.4	.0	.0	.0	.0	.0	3.4	.0	.0	3.4	.0	.0		.0	93.1
TOT PCT	5.0	3.6	2.0	.0	.0	.0	.0	9.9	2.3	.2	2.7	.0	1.5		.2	83.3
TOT OBS:	664															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.8	3.9	.5	.0	.0	.0	.0	9.2	1.4	.0	2.9	.0	1.0		.0	85.5
06&09	5.1	2.9	3.4	.0	.0	.0	.0	10.3	2.9	.0	3.4	.0	1.7		.6	81.1
12&15	3.3	4.6	2.6	.0	.0	.0	.0	9.8	1.3	.7	2.0	.0	1.3		.0	85.0
18&21	6.7	3.1	1.8	.0	.0	.0	.0	11.0	3.1	.0	1.8	.0	1.8		.0	82.2
TOT PCT	5.0	3.6	2.0	.0	.0	.0	.0	10.0	2.1	.1	2.6	.0	1.4		.1	83.5
TOT OBS:	698															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.9	4.9	4.7	.5	.1	.0		11.2	10.8	9.4	14.2	15.4	13.4	11.3	5.7	11.4	7.0
NE	1.0	3.9	3.2	.1	.0	.0		8.2	10.1	7.2	5.4	6.0	10.6	12.4	9.1	8.9	5.9
E	.7	5.0	3.7	.3	.0	.0		9.7	10.6	11.2	12.2	9.0	12.3	8.3	6.3	9.1	7.4
SE	.9	4.0	1.9	.3	.1	.0		7.1	9.8	6.8	.7	6.6	4.6	6.2	9.1	9.1	12.9
S	.7	9.0	5.6	1.2	.1	.0		16.7	11.3	21.8	14.2	19.4	14.4	11.5	10.8	14.1	15.6
SW	1.2	8.9	8.1	2.6	.0	.0		20.8	12.8	16.9	30.4	18.4	23.4	19.7	29.5	20.0	25.4
W	1.3	6.8	4.6	1.4	.0	.0		14.0	11.0	12.3	18.9	16.7	10.9	11.1	18.8	16.4	12.5
NW	.3	3.7	2.8	.8	.0	.0		7.6	11.2	10.1	1.4	5.5	4.2	10.0	1.7	9.3	7.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.8							4.8	.0	4.2	2.7	3.0	4.2	9.4	9.1	1.8	6.3
TOT OBS	92	365	272	56	3	0	788		10.7	212	37	133	71	117	44	110	64
TOT PCT	11.7	46.3	34.5	7.1	.4	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.2	6.3	1.5	.1	.0		11.2	10.8	10.1	14.7	9.8	9.8
NE	2.3	4.9	.9	.1	.0		8.2	10.1	6.9	7.6	11.5	7.8
E	2.2	6.1	1.1	.3	.0		9.7	10.6	11.3	10.2	7.8	8.5
SE	1.8	4.7	.3	.1	.0		7.1	9.8	5.9	5.9	7.0	10.5
S	4.4	8.9	3.0	.5	.0		16.7	11.3	20.7	17.6	11.3	14.7
SW	3.6	10.8	5.6	.8	.0		20.8	12.8	18.9	20.8	22.4	22.0
W	4.6	6.0	3.3	.1	.0		14.0	11.0	13.3	14.7	13.2	14.9
NW	1.9	4.6	.9	.1	.0		7.6	11.2	8.8	9.0	7.8	8.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.8						4.8	.0	4.0	3.4	9.3	3.4
TOT OBS	227	412	132	17	0	788		10.7	249	284	161	174
TOT PCT	28.8	52.3	16.8	2.2	.0		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.0	4.8	45.8	36.9	8.4	.0	.0	11.3	100.0	249
06&09	3.4	7.4	46.1	34.3	7.8	1.0	.0	11.0	100.0	204
12&15	9.3	7.5	48.4	29.2	5.0	.6	.0	9.5	100.0	161
18&21	3.4	8.6	45.4	36.2	6.3	.0	.0	10.5	100.0	174
TOT	38	54	365	272	56	3	0	10.7		788
PCT	4.8	6.9	46.3	34.5	7.1	.4	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.0	1.0	5.0	6.4		6.0
NE	2.1	.8	1.7	2.0		4.9
E	1.1	1.1	3.9	1.5		5.3
SE	2.5	2.0	2.3	.9		4.1
S	4.6	4.1	6.2	3.0		4.4
SW	3.7	2.5	6.6	3.7		5.0
W	5.1	4.8	5.2	2.3		4.3
NW	1.2	1.1	3.0	3.6		6.1
VAR	.0	.0	.0	.0		.0
CALM	2.0	.5	.5	.5		3.0
TOT OBS	96	71	136	93	396	4.9
TOT PCT	24.2	17.9	34.3	23.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.0	.8	2.3	3.4	1.1	.0	.0	.0	.0	6.5	
NE	.0	.0	.0	.4	1.6	.4	.0	.0	.0	.0	4.0	
E	.0	.4	.0	1.1	1.1	.3	.4	.0	.0	.0	4.6	
SE	.3	.1	.0	.9	1.1	.0	.1	.0	.0	.0	5.2	
S	.0	.0	.8	1.3	2.1	1.5	.7	.0	.0	.0	11.6	
SW	.3	.0	.5	2.2	3.1	1.3	.1	.3	.0	.0	8.2	
W	.2	.3	.5	.9	2.0	1.2	.9	.0	.0	.0	11.3	
NW	.3	.0	.9	.6	2.7	.3	.3	.0	.0	.0	9.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	2.8	
TOT OBS	5	3	14	40	71	24	10	1	0	0	228	396
TOT PCT	1.3	.8	3.5	10.1	17.9	6.1	2.5	.3	.0	.0	57.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
* OR >5000	.2	.2	.2	.2	.2	.2	.2	.2
* OR >3500	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0
* OR >2000	6.7	8.6	9.1	9.1	9.1	9.1	9.1	9.1
* OR >1000	20.7	26.2	27.2	27.2	27.2	27.2	27.2	27.2
* OR >600	26.7	35.6	37.3	37.3	37.3	37.3	37.3	37.3
* OR >300	28.6	38.3	40.7	40.7	40.7	40.7	40.7	40.7
* OR >150	28.6	38.5	41.5	41.5	41.5	41.5	41.5	41.5
* OR > 0	28.9	38.8	42.2	42.2	42.5	42.5	42.7	42.7
TOTAL	117	157	171	171	172	172	173	173

TOTAL NUMBER OF OBS: 405 PCT FREQ NH <5/8: 57.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.3	13.6	14.8	8.9	8.2	5.9	8.0	9.6	19.4	1.2	425

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.0	.2	.0	.0	.0	.0	.0	.2	.0	.2	.5	
	TOT %	.0	.2	.0	.0	.0	.0	.0	.2	.0	.2	.5	
	PCP	.2	.1	.4	.0	.0	.0	.0	.0	.0	.0	.6	
1/2<1	NO PCP	.2	.0	.0	.0	.0	.0	.6	.0	.0	.0	.8	
	TOT %	.3	.1	.4	.0	.0	.0	.6	.0	.0	.0	1.4	
	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1<2	NO PCP	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.3	
	TOT %	.2	.0	.0	.0	.2	.2	.0	.0	.0	.0	.5	
	PCP	.4	.1	.4	.2	.0	.0	.1	.5	.0	.0	1.7	
2<5	NO PCP	.2	.0	.2	.0	.2	.0	.3	.3	.0	.0	1.1	
	TOT %	.5	.1	.5	.2	.2	.0	.4	.8	.0	.0	2.7	
	PCP	1.0	.5	1.1	.3	.7	1.1	.5	.2	.0	.0	5.3	
5<10	NO PCP	2.4	2.8	2.2	2.1	4.1	9.0	2.9	1.0	.0	1.5	28.1	
	TOT %	3.4	3.2	3.3	2.5	4.8	10.1	3.4	1.2	.0	1.5	33.3	
	PCP	.1	.3	.1	*	.2	.6	.3	.5	.0	.0	2.1	
10+	NO PCP	7.1	3.8	4.8	4.6	12.0	10.3	9.9	4.4	.0	2.6	59.6	
	TOT %	7.2	4.1	4.9	4.6	12.1	10.9	10.1	5.1	.0	2.6	61.7	
	TOT OBS												663
	TOT PCT	11.6	7.7	9.1	7.3	17.2	21.2	14.6	7.2	.0	4.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	.3	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.1	.0	.1	.4	
	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	4-10	.0	.0	.0	.0	.0	.0	.6	.0	.0		.6	
	11-21	.1	.1	.4	.0	.0	.0	.0	.0	.0		.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.3	.1	.4	.0	.0	.0	.6	.0	.0	.0	1.3	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.1	.1	.0	.0	.0		.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.0	.0	.0	.1	.1	.0	.0	.0	.0	.4	
	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
2<5	4-10	.0	.0	.3	.0	.1	.0	.1	.3	.0		.9	
	11-21	.5	*	.1	.0	.0	.0	.1	.2	.0		1.0	
	22+	.0	.1	.1	.0	.0	.0	.1	.3	.0		.6	
	TOT %	.5	.1	.5	.1	.1	.0	.4	.8	.0	.0	2.7	
	0-3	.2	.8	.4	.5	.4	.5	.1	.0	.0	1.5	4.5	
5<10	4-10	1.1	.3	1.2	1.2	2.4	5.2	2.1	.9	.0		14.4	
	11-21	1.9	2.0	1.5	.8	1.4	2.7	1.2	.3	.0		11.8	
	22+	.1	*	.1	.0	.6	1.6	.1	.1	.0		2.7	
	TOT %	3.4	3.2	3.3	2.5	4.7	10.0	3.5	1.3	.0	1.5	33.4	
	0-3	.4	.1	.3	.1	.3	.7	1.0	.1	.0	2.5	5.7	
10+	4-10	3.6	3.0	2.8	2.9	6.4	4.0	4.3	2.1	.0		29.0	
	11-21	2.6	1.0	1.8	1.3	4.5	5.2	3.3	2.3	.0		22.0	
	22+	.6	.0	.0	.3	1.0	1.2	1.4	.5	.0		4.9	
	TOT %	7.1	4.1	4.9	4.6	12.2	11.1	10.1	5.0	.0	2.5	61.7	
	TOT OBS												668
	TOT PCT	11.5	7.7	9.0	7.2	17.3	21.3	14.6	7.3	.0	4.2	100.0	

DECEMBER

PERIOD: (PRIMARY) 1921-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.8	4.2	5.9	17.6	5.9	2.5	.0	.0	.0	37.0	63.0	119
06&09	1.7	.9	2.6	9.5	14.7	8.6	2.6	.9	.0	.0	41.4	58.6	116
12&15	1.4	1.4	4.2	8.5	23.9	2.8	1.4	.0	.0	.0	43.7	56.3	71
18&21	1.8	.0	2.7	15.3	17.1	6.3	3.6	.0	.0	.0	46.8	53.2	111
TOT	5	3	14	41	74	26	11	1	0	0	175	242	417
PCT	1.2	.7	3.4	9.8	17.7	6.2	2.6	.2	.0	.0	42.0	58.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	1.9	.0	2.4	33.8	61.9	210
06&09	.0	1.7	.6	4.0	35.2	58.5	176
12&15	.7	1.3	.7	1.3	37.5	58.6	152
18&21	1.2	.6	.6	2.4	29.3	65.9	164
TOT	3	10	3	18	236	430	702
PCT	.4	1.4	.4	2.6	33.9	61.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	6.1	14.0	25.4	60.5	114
06&09	1.7	5.2	16.5	25.2	58.3	115
12&15	1.5	7.6	16.7	28.8	54.5	66
18&21	1.8	4.5	20.9	26.4	52.7	110
TOT	5	23	69	106	230	405
PCT	1.2	5.7	17.0	26.2	56.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.4	.4	.0	.0	4	.8
70/74	.0	.0	.2	.0	.6	2.5	1.8	1.6	34	6.7
65/69	.0	.0	.0	.4	4.1	9.6	14.1	14.5	218	42.7
60/64	.0	.0	.0	.4	4.5	14.1	12.2	12.4	222	43.5
55/59	.0	.0	.0	.2	1.0	2.4	2.0	.8	32	6.3
TOTAL	0	0	1	5	54	148	153	149	510	100.0
PCT	.0	.0	.2	1.0	10.6	29.0	30.0	29.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.6	.1	.0	.0	.0	.0	*	.0	.0
1.1	1.0	1.0	.4	1.1	.6	1.1	*	.0	.4
7.0	4.3	4.1	3.4	6.7	5.4	6.2	3.9	.0	1.8
4.5	2.5	2.4	2.9	9.0	10.0	6.7	4.5	.0	1.0
.4	.0	.0	.2	2.0	2.2	1.2	*	.0	.2
13.1	8.3	7.6	6.9	18.8	18.2	15.2	8.5	.0	3.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	79	78	72	66	61	59	55	66.5	281
06&09	78	72	70	65	60	58	57	65.1	201
12&15	72	71	67	63	57	56	55	62.7	161
18&21	70	69	68	63	59	55	55	63.2	182
TOT	79	73	70	64	59	56	55	64.6	795

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	.6	20.0	35.5	23.2	20.6	78	155
06&09	.0	2.1	6.3	30.3	32.4	28.9	82	142
12&15	.0	1.0	4.1	22.7	27.8	44.3	85	97
18&21	.0	.7	10.4	23.1	35.1	30.6	83	134
TOT	0	6	58	191	156	197	82	528

DECEMBER

PERIOD: (PRIMARY) 1921-1977
(OVER-ALL) 1857-1977

AREA 0029 AUCKLAND WEST
35.6S 172.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
14/16	.0	.0	.0	.2	.0	.0	.0	1	.0	.2
11/13	.0	.0	.0	.2	.0	.2	.2	3	.0	.5
9/10	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
7/8	.0	.0	.2	.5	.9	.0	.0	9	.0	1.6
6	.0	.0	.4	.2	.5	.0	.0	6	.2	.9
5	.0	.2	1.3	2.2	2.7	.4	.2	38	.2	6.6
4	.0	.0	1.4	2.3	.9	.0	.0	26	.4	4.3
3	.2	.0	2.7	6.5	2.2	.0	.2	65	.5	11.1
2	.0	.2	4.8	6.6	1.3	.2	.0	73	.5	12.5
1	.2	.5	7.0	3.2	1.6	.0	.0	70	.5	12.0
0	.0	1.4	5.2	6.3	.5	.0	.0	75	.4	13.1
-1	.0	1.1	3.6	5.0	.4	.0	.0	56	.0	10.0
-2	.0	2.5	5.0	3.0	.0	.0	.0	59	.4	10.2
-3	.0	1.1	3.0	1.4	.0	.0	.0	31	.0	5.6
-4	.0	.7	1.6	.7	.0	.0	.0	17	.0	3.0
-5	.0	.4	1.4	.7	.0	.0	.0	14	.0	2.5
-6	.0	.5	.2	.2	.0	.0	.0	5	.0	.9
-7/-8	.2	.5	.4	.0	.0	.0	.0	6	.0	1.1
-9/-10	.0	.0	.2	.0	.0	.0	.0	1	.0	.2
-11/-13	.0	.0	.2	.0	.0	.0	.0	1	.0	.2
TOTAL	3	51	215	219	62	4	4	558	17	541
PCT	.5	9.1	38.5	39.2	11.1	.7	.7	100.0	3.0	97.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.0	.0	.0	.0	.0	.6
1-2	.0	3.6	1.6	.0	.0	.0	5.2
3-4	.0	1.1	3.1	.3	.0	.0	4.6
5-6	.0	.3	1.9	.3	.0	.0	2.6
7	.0	.0	1.0	.3	.0	.0	1.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.3	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.0	7.7	1.0	.3	.0	14.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.4	.0	.0	.0	.0	.8
1-2	.0	1.5	1.0	.0	.0	.0	2.6
3-4	.0	.8	1.8	.0	.0	.0	2.6
5-6	.0	.1	.5	.0	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.8	3.3	.1	.0	.0	6.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.5	.0	.0	.0	.0	1.5
1-2	.3	1.1	.0	.0	.0	.0	1.4
3-4	.0	1.0	3.2	.0	.0	.0	4.3
5-6	.0	.3	.9	.0	.0	.0	1.1
7	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.9	4.4	.3	.0	.0	8.9

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	2.2	.5	.0	.0	.0	2.7
3-4	.0	.7	1.9	.0	.0	.0	2.6
5-6	.0	.3	.2	.0	.0	.0	.5
7	.0	.1	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	2.6	.0	.0	.0	6.4

PERIOD: (OVER-ALL) 1963-1977 DECEMBER AREA 0025 AUCKLAND WEST

TABLE 18 (CONT) 35.6S 172.8E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	4.1	1.2	.0	.0	.0	5.3
3-4	.0	3.0	2.6	.0	.0	.0	5.5
5-6	.0	.9	2.2	1.3	.0	.0	4.4
7	.0	.3	1.3	.0	.0	.0	1.5
8-9	.0	.3	.3	.3	.0	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.7	7.6	1.6	.0	.0	18.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	.0	.0	.0	.0	.3
1-2	.0	2.5	1.2	.0	.0	.0	3.7
3-4	.0	1.3	3.3	.0	.0	.0	4.6
5-6	.0	.1	2.3	.5	.0	.0	2.9
7	.0	.3	.4	.3	.0	.0	1.1
8-9	.0	.0	.3	.3	.0	.0	.7
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	4.4	7.9	1.5	.0	.0	13.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.9	.0	.0	.0	.0	1.4
1-2	.0	5.5	.5	.0	.0	.0	6.0
3-4	.0	1.7	3.7	.3	.0	.0	5.8
5-6	.0	.0	2.0	.3	.0	.0	2.2
7	.0	.0	.7	1.0	.0	.0	1.7
8-9	.0	.0	.0	.7	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.3	.0	.0	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	8.1	7.2	2.3	.0	.0	18.2

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.4	.0	.0	.0	.0	.5	
1-2	.3	1.6	.8	.0	.0	.0	2.7	
3-4	.0	1.4	2.8	.0	.0	.0	4.2	
5-6	.0	.0	.0	.3	.0	.0	.3	
7	.0	.0	.0	.7	.0	.0	.7	
8-9	.0	.0	.0	.3	.0	.0	.3	
10-11	.0	.0	.0	.3	.0	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	3.4	3.6	1.7	.0	.0	9.1	9/.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.6	5.0	.0	.0	.0	.0	11.6	
1-2	1.3	21.6	6.6	.0	.0	.0	29.6	
3-4	.0	10.6	21.9	.7	.0	.0	33.2	
5-6	.0	2.0	9.6	2.7	.0	.0	14.3	
7	.0	.7	3.7	2.3	.0	.0	6.6	
8-9	.0	.3	.7	1.7	.0	.0	2.7	
10-11	.0	.0	.3	.3	.3	.0	1.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.7	.0	.0	.7	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.3	.0	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.0	40.2	43.2	8.3	.3	.0	100.0	301

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.9	3.6	7.3	5.5	3.3	1.8	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	78	5
6-7	.0	.6	6.7	9.1	4.9	3.3	2.4	.6	.3	.6	.0	.0	.3	.0	.0	.0	.0	.0	.0	95	6
8-9	.0	.0	3.6	4.6	6.1	2.1	3.0	.9	1.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	73	7
10-11	.0	.6	2.7	2.1	2.4	.6	.9	.6	.9	.0	.0	.0	.0	.6	.0	.0	.3	.0	.0	39	10
12-13	.0	.0	1.5	.6	1.2	.3	.6	.3	1.2	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	21	9
>13	.0	.0	.0	.0	.6	.6	.3	.0	.3	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	8	12
INDET	1.8	.6	.9	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	2
TOTAL	9	18	75	76	61	29	27	9	16	4	2	0	2	2	0	0	1	0	0	329	7
PCT	2.7	5.5	22.8	23.1	18.5	8.8	8.2	2.7	4.9	1.2	.6	.0	.6	.6	.0	.0	.3	.0	.0	100.0	

ANNUAL

PERIOD: (PRIMARY) 1901-1978
(OVER-ALL) 1857-1978

AREA 0025 AUCKLAND WEST
35.8S 172.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	8.2	4.4	3.5	.0	.0	.0	.0	15.8	4.3	1.3	3.0	.2	1.3		.0	74.6
NE	8.4	5.2	3.7	.0	.0	.0	.0	17.1	2.9	.4	3.0	.2	.6		*	76.1
E	6.2	6.3	2.8	.0	.0	.0	.1	15.4	2.6	.2	1.6	.0	.9		.1	79.4
SE	4.0	3.4	2.4	.0	.0	.0	.1	9.7	1.9	.3	.8	.0	1.3		.1	85.8
S	2.4	2.3	1.7	.0	.0	.0	*	6.3	2.4	.6	1.1	.0	1.0		.1	88.6
SW	1.7	4.7	1.2	.0	.0	.0	*	7.4	3.5	.4	2.0	.1	.9		.1	85.9
W	2.5	4.7	1.0	.0	.0	.0	.2	8.2	3.7	.8	2.3	.0	1.2		.0	84.0
NW	6.0	4.7	4.0	.0	.0	.0	.1	14.5	3.5	1.0	3.1	.3	1.7		.2	76.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	1.4	1.1	1.6	.0	.0	.0	.0	4.2	1.2	2.2	1.8	.0	1.1		.0	89.4
TOT PCT	4.2	4.3	2.2	.0	.0	.0	.1	10.6	3.0	.7	2.0	.1	1.1		.1	82.6
TOT OBS:	8821															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
0003	4.2	4.3	1.5	.0	.0	.0	*	9.9	2.8	.1	2.1	.1	1.5		.0	83.6
0609	4.6	4.0	2.6	.0	.0	.0	*	11.0	3.0	.5	2.2	.1	1.3		.1	81.9
1215	4.2	5.3	2.2	.0	.0	.0	.1	11.6	3.0	1.5	1.6	.0	.4		.0	82.2
1821	3.9	3.6	2.9	.0	.0	.0	.2	10.5	3.9	.8	2.2	*	1.1		.2	82.2
TOT PCT	4.3	4.3	2.3	.0	.0	.0	.1	10.7	3.0	.7	2.1	.1	1.1		.1	82.5
TOT OBS:	9200															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.9	4.4	3.7	.9	.2	*		10.1	12.3	10.4	14.3	9.5	11.2	9.8	8.4	10.0	8.3
NE	.7	4.6	3.4	.9	.2	*		9.8	12.1	10.0	10.5	8.1	10.3	10.4	10.1	9.1	10.7
E	.6	4.1	3.9	1.2	.2	*		10.0	13.0	11.1	12.1	9.5	10.0	8.3	9.9	9.7	9.9
SE	.7	4.0	3.4	1.1	.2	*		9.4	12.6	9.3	5.6	10.0	7.6	9.7	8.3	10.6	10.4
S	1.0	6.7	6.7	1.6	.2	*		16.2	12.6	15.8	15.1	19.2	16.0	16.5	13.8	15.6	13.8
SW	.9	6.5	8.0	2.7	.4	.1		18.5	14.1	18.4	20.4	19.1	19.1	17.4	20.9	17.9	18.2
W	1.1	5.1	5.2	2.0	.3	*		13.7	13.3	13.2	14.2	13.7	13.6	13.4	13.7	14.8	13.8
NW	.5	3.4	3.6	.9	.1	*		8.6	12.3	9.4	5.6	8.9	7.8	9.0	6.2	8.3	9.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.7							3.7	.0	2.2	2.2	1.9	4.4	5.6	8.7	4.0	5.7
TOT OBS							10220		12.5	2683	479	1861	886	1498	499	1317	797
TOT PCT	10.1	38.8	37.9	11.2	1.7	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.6	5.1	1.8	.5	.1		10.1	12.3	11.0	10.0	9.5	9.5
NE	2.5	4.8	1.9	.4	.1		9.8	12.1	10.1	8.8	10.4	9.8
E	2.3	4.6	2.5	.6	*		10.0	13.0	11.3	9.7	8.7	9.8
SE	2.2	4.6	1.9	.6	.1		9.4	12.6	8.7	9.1	9.4	10.6
S	3.6	8.3	3.6	.7	.1		16.2	12.6	15.8	18.2	15.8	14.8
SW	3.1	9.0	5.0	1.3	.2		18.5	14.1	18.7	19.2	18.2	17.9
W	3.2	5.9	3.5	.9	.1		13.7	13.3	13.3	13.6	13.4	14.4
NW	1.8	4.5	1.9	.3	*		8.6	12.3	8.8	8.6	8.2	8.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.7						3.7	.0	2.3	2.7	6.3	4.7
TOT OBS						10220		12.5	3162	2747	1997	2314
TOT PCT	25.1	46.9	22.2	5.3	.6		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.3	5.2	38.3	40.5	12.1	1.4	.2	13.1	100.0	3162
06&09	2.7	6.2	38.4	38.7	11.6	2.1	.3	13.0	100.0	2747
12&15	0.3	8.9	38.4	34.0	10.9	1.4	.1	11.6	100.0	1997
18&21	4.7	6.3	40.3	36.7	9.9	1.9	.3	12.2	100.0	2314
TOT								12.5		10220
PCT	3.7	6.4	38.8	37.9	11.2	1.7	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.6	1.5	3.5	3.7		5.7
NE	1.7	1.1	2.5	2.7		5.3
E	2.5	1.1	2.6	2.4		4.9
SE	3.5	1.5	2.8	1.9		4.3
S	5.1	4.1	6.1	2.5		4.3
SW	4.0	5.6	7.4	2.9		4.5
W	3.5	4.1	5.2	2.1		4.4
NW	1.3	1.7	3.1	2.7		5.4
VAR	.0	.0	.0	.0		.0
CALM	1.4	.5	.5	.5		3.7
TOT OBS					5223	4.7
TOT PCT	24.6	21.1	33.7	20.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.1	.4	1.5	1.8	.7	.2	.0	*	.1	5.1	
NE	.1	*	.4	1.2	1.3	.5	.2	.1	.1	*	4.1	
E	.1	.1	.4	.8	1.5	.5	.2	.1	.0	*	4.9	
SE	*	*	.2	.8	1.5	.7	.2	.1	*	.1	6.1	
S	.1	.0	.3	1.4	3.3	1.3	.4	.1	*	*	10.9	
SW	.1	.1	.2	1.7	3.3	1.5	.3	.1	.1	.1	11.8	
W	*	.1	.4	1.5	2.3	.9	.3	.1	.1	.0	9.2	
NW	.1	*	.5	1.1	1.5	.6	.3	.1	.1	*	4.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	*	.0	.1	.1	.2	.1	*	*	.0	.0	2.4	
TOT OBS												5223
TOT PCT	.9	.4	2.8	10.0	16.8	6.9	2.1	.5	.4	.3	58.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.5	.7	.7	.7	.7	.7	.7	.7
* OR >5000	1.0	1.1	1.2	1.2	1.2	1.2	1.2	1.2
* OR >3500	2.9	3.3	3.4	3.4	3.4	3.4	3.4	3.4
* OR >2000	8.3	10.0	10.4	10.4	10.4	10.4	10.4	10.4
* OR >1000	20.5	25.8	27.0	27.1	27.2	27.2	27.2	27.2
* OR >600	26.3	34.4	36.7	37.1	37.2	37.2	37.3	37.3
* OR >300	27.1	36.1	39.4	39.8	40.0	40.0	40.1	40.1
* OR >150	27.2	36.3	39.7	40.2	40.3	40.4	40.4	40.5
* OR > 0	27.3	36.6	40.2	40.8	41.1	41.1	41.3	41.4

TOTAL NUMBER OF OBS: 5389 PCT FREQ NH <5/8: 58.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
7.6	15.1	14.2	11.7	9.6	7.0	8.3	9.7	16.1 .7	5853

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	*	*	*	*	*	*	*	.0	.0	.2	
	NO PCP	.1	*	*	*	*	*	*	.1	.0	*	.3	
	TOT %	.1	.1	*	*	*	*	.1	.1	.0	*	.5	
1/2<1	PCP	.1	.1	.2	*	*	*	*	*	.0	*	.5	
	NO PCP	.1	.2	*	*	*	.1	.1	.1	.0	*	.7	
	TOT %	.2	.3	.2	*	*	.1	.1	.1	.0	*	1.2	
1<2	PCP	.1	.1	*	*	*	*	.1	.1	.0	.0	.5	
	NO PCP	.1	*	*	*	.1	.1	*	.1	.0	.0	.4	
	TOT %	.2	.1	.1	.1	.1	.1	.1	.1	.0	.0	.8	
2<5	PCP	.4	.3	.2	.1	.1	.1	.1	.3	.0	*	1.7	
	NO PCP	.3	.2	.1	.1	.2	.2	.2	.2	.0	*	1.5	
	TOT %	.7	.5	.4	.2	.3	.3	.3	.5	.0	.1	3.2	
5<10	PCP	.8	.9	.9	.5	.6	.8	.7	.7	.0	.1	6.0	
	NO PCP	2.7	3.1	2.5	1.9	3.2	4.9	3.3	2.0	.0	1.3	24.8	
	TOT %	3.5	4.0	3.4	2.3	3.8	5.7	4.0	2.7	.0	1.4	30.8	
10+	PCP	.2	.2	.1	.2	.3	.4	.2	.2	.0	*	1.8	
	NO PCP	5.3	4.6	5.5	6.3	11.6	12.4	8.9	4.9	.0	2.1	61.7	
	TOT %	5.5	4.8	5.6	6.5	11.9	12.8	9.1	5.1	.0	2.1	63.6	
	TOT OBS												8811
	TOT PCT	10.1	9.8	9.7	9.2	16.1	19.2	13.7	8.7	.0	3.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	*	*	*	*	*	*	*	*	.0	*	.2	
	4-10	*	*	*	*	.0	.0	*	*	.0		.1	
	11-21	*	*	.0	*	.0	*	.0	*	.0		.1	
	22+	*	*	.0	*	*	.0	*	.0	.0		.1	
	TOT %	.1	.1	*	*	*	*	.1	.1	.0	*	.5	
1/2<1	0-3	*	*	.0	*	.0	*	*	.0	.0	*	.1	
	4-10	.1	.1	*	.0	*	.1	.1	*	.0		.4	
	11-21	*	.1	.1	*	*	*	*	*	.0		.3	
	22+	*	.1	.1	.0	.0	*	*	*	.0		.3	
	TOT %	.2	.3	.2	*	*	.1	.1	.1	.0	*	1.2	
1<2	0-3	*	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	4-10	*	*	*	*	*	*	*	.1	.0		.3	
	11-21	.1	*	*	*	*	.1	*	.1	.0		.3	
	22+	*	.1	*	.1	*	*	*	*	.0		.3	
	TOT %	.2	.1	.1	.1	.1	.1	.1	.1	.0	.0	.9	
2<5	0-3	*	*	*	*	*	*	*	.0	.0	.1	.1	
	4-10	.2	.1	.1	*	.1	.1	.1	.2	.0		.8	
	11-21	.3	.2	.2	*	.1	.2	.1	.2	.0		1.3	
	22+	.2	.1	.1	.1	.1	.1	.1	.1	.0		1.0	
	TOT %	.7	.5	.4	.2	.3	.3	.3	.5	.0	.1	3.3	
5<10	0-3	.4	.4	.3	.2	.4	.4	.5	.2	.0	1.3	4.3	
	4-10	1.4	1.9	1.0	.9	1.6	2.2	1.3	1.0	.0		11.3	
	11-21	1.2	1.3	1.4	.8	1.3	1.9	1.3	1.1	.0		10.3	
	22+	.5	.4	.6	.4	.5	1.2	.8	.5	.0		4.9	
	TOT %	3.5	4.0	3.3	2.3	3.8	5.7	4.0	2.7	.0	1.3	30.6	
10+	0-3	.4	.3	.2	.4	.6	.5	.6	.2	.0	2.1	5.5	
	4-10	2.6	2.4	2.7	2.8	4.7	4.3	3.6	2.1	.0		25.4	
	11-21	2.0	1.8	2.3	2.6	5.3	5.9	3.6	2.2	.0		25.9	
	22+	.4	.4	.4	.7	1.2	1.9	1.4	.5	.0		6.8	
	TOT %	5.5	4.9	5.6	6.5	11.9	12.8	9.1	5.1	.0	2.1	63.5	
	TOT OBS												8866
	TOT PCT	10.1	9.8	9.6	9.2	16.1	19.1	13.7	8.7	.0	3.6	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.4	.4	2.8	9.7	15.9	6.5	2.3	.4	.3	.1	39.0	61.0	1670
06&09	1.1	.3	2.7	9.0	15.5	7.7	2.3	.7	.4	.4	40.2	59.8	1641
12&15	1.1	.1	2.4	8.9	13.7	6.4	1.5	.7	.5	.5	35.8	64.2	978
18&21	.9	.5	2.7	10.6	18.7	5.9	2.0	.4	.3	.2	42.3	57.7	1356
TOT													5645
PCT	.9	.4	2.7	9.7	16.1	6.7	2.1	.5	.4	.3	39.7	60.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.4	1.2	1.2	2.5	31.0	63.5	2732
06&09	.5	1.1	.9	4.1	27.6	65.9	2476
12&15	.5	1.2	.9	3.2	35.6	58.6	1917
18&21	.9	1.2	.7	3.4	30.5	63.2	2123
TOT							9248
PCT	.6	1.2	1.0	3.3	30.9	63.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.5	4.3	15.7	25.3	59.0	1605
06&09	1.2	4.4	16.1	26.0	57.9	1577
12&15	1.2	4.3	15.1	24.1	60.7	899
18&21	1.0	4.4	17.0	27.0	56.0	1308
TOT						5389
PCT	.9	4.4	16.1	25.8	58.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	*	.0	.0	.0	.0	.0		*
80/84	.0	.0	*	*	*	*	*	.0		.1
75/79	.0	.0	*	.1	.3	.3	.1	.1		.9
70/74	.0	.0	*	.2	.7	2.1	2.8	2.2		8.1
65/69	.0	*	.1	.4	2.2	5.5	6.9	7.6		22.6
60/64	.0	.1	.1	.7	4.6	8.6	9.9	9.5		33.6
55/59	.0	.1	.1	.8	4.8	9.0	8.3	5.9		28.9
50/54	.0	.0	.1	.1	.9	1.3	1.8	1.1		5.4
45/49	.0	.0	.0	.0	.1	.1	.2	.2		.5
40/44	.0	.0	.0	.0	*	.0	*	*		*
35/39	.0	.0	.0	.0	.0	.0	*	.0		*
TOTAL									6752	100.0
PCT	.0	.2	.5	2.9	13.6	27.0	30.0	26.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	*	*	.0	.0	.0	.0	.0	.0	.0
*	.0	.0	*	.0	.0	*	*	.0	.0
.2	.1	.1	.1	.1	.1	.1	.1	.0	*
1.1	1.3	1.3	.8	1.0	.8	.7	.8	.0	.4
2.7	2.5	2.5	2.7	4.0	3.2	2.3	2.0	.0	.8
3.9	2.5	2.5	2.4	5.6	6.6	5.2	4.0	.0	.9
1.8	1.7	2.0	3.1	5.7	6.5	5.2	2.2	.0	.6
.2	.2	.6	.7	1.2	1.3	.8	.2	.0	.2
*	*	*	.1	.1	.1	*	*	.0	.1
.0	.0	.0	*	*	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	*	*	.0	.0	.0
9.9	8.2	9.0	9.9	17.7	18.6	14.3	9.4	.0	3.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	82	72	69	63	58	55	37	63.1	3183
06&09	86	71	67	62	58	54	37	62.3	2773
12&15	79	68	66	61	55	53	39	60.3	2065
18&21	84	67	66	61	56	53	41	60.9	2333
TOT	86	70	67	62	56	53	37	61.8	10354

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	4.6	19.7	29.8	25.9	20.0	78	2092
06&09	.0	2.6	13.2	27.9	30.5	25.8	81	1941
12&15	.0	1.6	8.8	23.0	32.7	33.9	84	1297
18&21	.0	2.5	10.2	24.7	32.6	30.0	82	1666
TOT	0	209	930	1887	2089	1861	81	6996

ANNUAL

PERIOD: (PRIMARY) 1901-1978
(OVER-ALL) 1857-1978

AREA 0025 AUCKLAND WEST
35.0S 172.9E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	3	.0	*
17/19	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	3	.0	*
14/16	.0	.0	.0	.0	.0	.1	*	.1	.1	*	*	25	.0	.3
11/13	.0	.0	.0	.0	.1	.1	.1	.2	*	.1	*	52	*	.7
9/10	.0	.0	.0	*	.1	.1	.2	.2	.1	.1	*	54	.0	.8
7/8	.0	.0	.0	*	.2	.3	.4	.3	.2	*	*	104	*	1.5
6	.0	.0	.0	*	.1	.3	.3	.3	.2	.1	.0	96	*	1.3
5	.0	.0	.0	.1	.2	1.2	.8	.8	.4	.1	.0	253	.2	3.5
4	.0	.0	*	.1	.5	1.9	1.2	.8	.3	.0	.0	342	.1	4.7
3	.0	.0	.0	.2	.7	1.9	1.4	1.1	.3	*	.0	402	.1	5.6
2	.0	.0	*	.4	1.8	3.3	2.1	1.9	.2	.0	.0	691	.3	9.4
1	.0	.0	*	.7	2.7	3.7	2.2	1.5	.2	*	.0	771	.3	10.6
0	.0	.0	.1	1.1	3.7	4.4	3.7	1.5	.1	.0	.0	1022	.4	14.2
-1	.0	.0	.1	.9	3.7	2.9	2.5	.6	.1	.0	.0	756	.3	10.5
-2	.0	*	.2	1.4	3.5	2.8	2.5	.5	*	.0	.0	776	.2	10.8
-3	.0	*	.2	1.6	2.7	1.8	1.1	.3	.0	.0	.0	542	.1	7.5
-4	*	*	.2	1.5	1.8	1.4	.8	.1	.0	.0	.0	404	.1	5.7
-5	.0	.2	.2	1.5	.9	1.1	.7	.1	.0	.0	.0	330	.1	4.6
-6	*	.1	.1	.8	.6	.4	.2	*	.0	.0	.0	156	.0	2.2
-7/-8	.1	.1	.3	.6	.7	.5	.1	.0	.0	.0	.0	168	.1	2.4
-9/-10	*	*	.2	.2	.1	.1	*	.0	.0	.0	.0	50	*	.7
-11/-13	.0	*	.1	.1	.2	*	*	.0	.0	.0	.0	28	.0	.4
-14/-16	.0	*	*	*	.0	.0	.0	.0	.0	.0	.0	4	.0	.1
TOTAL												7032		
PCT	.1	.5	1.9	11.3	24.3	28.3	20.3	10.3	2.3	.5	.1	100.0	2.4	97.6

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.6	*	.0	.0	.0	1.0
1-2	.1	2.2	1.1	.0	.0	.0	3.4
3-4	*	.9	1.9	.1	.0	.0	3.0
5-6	.0	.3	1.3	.2	.0	.0	1.9
7	.0	.0	.5	.4	.1	.0	1.0
8-9	.0	.0	.1	.1	*	*	.2
10-11	.0	*	.1	.2	.1	.0	.4
12	.0	*	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	*	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.1	5.0	1.2	.2	*	11.1

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	.1	.0	.0	.0	.5
1-2	*	1.9	.6	.0	.0	.0	2.6
3-4	*	.5	1.5	.2	.0	.0	2.2
5-6	*	.1	.9	.2	*	.0	1.2
7	*	*	.3	.4	*	.0	.7
8-9	.0	.0	.1	.1	*	*	.2
10-11	.0	*	*	.1	.1	.0	.2
12	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	*	*	.0	.0	.1
17-19	.0	*	.0	*	.0	*	.1
20-22	.0	.0	.0	.0	*	.0	*
23-25	.0	.0	*	.0	.0	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.9	3.5	1.0	.1	*	7.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	*	.0	.0	.0	.8
1-2	.1	2.1	.7	.0	.0	.0	2.9
3-4	.0	.8	2.1	.1	.0	.0	2.8
5-6	.0	.1	.8	.3	*	.0	1.3
7	.0	*	.4	.3	.1	.0	.7
8-9	.0	.0	*	.2	*	.0	.2
10-11	.0	.0	*	.1	*	.0	.1
12	.0	.0	*	.1	*	.0	.2
13-16	.0	.0	.0	*	*	.0	*
17-19	.0	.0	.0	.1	.0	*	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.4	4.1	1.1	.2	*	9.0

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.5	*	.0	.0	.0	.7
1-2	.1	2.1	.9	.0	.0	.0	3.0
3-4	*	.9	1.5	.1	.0	.0	2.6
5-6	.0	.2	.9	.3	*	.0	1.5
7	.0	*	.3	.3	*	.0	.6
8-9	.0	.0	.2	.3	.1	.0	.6
10-11	.0	.0	*	.1	*	.0	.2
12	.0	.0	.0	*	.0	*	*
13-16	.0	.0	.0	*	*	*	.1
17-19	.0	.0	.0	.0	.0	.0	*
20-22	.0	.0	.0	.0	*	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.7	3.8	1.1	.2	*	9.3

PERIOD: (OVER-ALL) 1963-1978

ANNUAL

TABLE 18 (CONT)

AREA 0025 AUCKLAND WEST 35.0S 172.9E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.7	*	.0	.0	.0	1.0
1-2	.2	3.6	1.4	.0	.0	.0	5.2
3-4	.1	1.8	3.4	.2	.0	.0	5.5
5-6	*	.2	2.2	.8	.1	.0	3.2
7	*	.1	.8	.5	.1	.0	1.5
8-9	.0	.1	.3	.3	*	.0	.7
10-11	.0	*	.2	.3	.1	*	.6
12	.0	*	.0	*	*	.0	.1
13-16	.0	.0	*	.1	.1	.0	.2
17-19	.0	*	.0	.0	.0	.0	*
20-22	.0	.0	.0	.0	*	*	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	6.5	8.2	2.2	.3	*	17.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.1	.0	.0	.0	.9
1-2	.1	3.2	1.7	.0	.0	.0	4.9
3-4	*	1.5	3.4	.2	.0	.0	5.1
5-6	*	.5	2.4	.7	.1	.0	3.7
7	*	.1	1.1	.7	.1	.0	2.0
8-9	.0	.1	.2	.4	.1	*	.8
10-11	.0	.1	.1	.3	.1	*	.6
12	.0	.0	.1	.1	.1	.0	.2
13-16	.0	*	.1	.3	*	.0	.4
17-19	.0	.0	.0	*	.1	*	.1
20-22	.0	.0	.0	.0	*	.0	*
23-25	.0	.0	.0	.0	*	.0	*
26-32	.0	.0	.0	.0	.0	*	*
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	6.0	9.1	2.8	.6	.1	18.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.4	*	.0	.0	.0	.7
1-2	.1	2.7	.9	.0	.0	.0	3.7
3-4	*	1.4	2.3	.2	.0	.0	3.9
5-6	.0	.2	1.9	.6	.1	.0	2.8
7	*	*	.8	.7	.1	.0	1.6
8-9	.0	*	.2	.5	.1	.0	.8
10-11	.0	*	*	.3	.1	.0	.5
12	.0	.0	*	.1	*	.0	.1
13-16	.0	.0	.1	.1	*	.0	.2
17-19	.0	.0	.0	*	*	*	.1
20-22	.0	.0	*	.0	.0	.0	*
23-25	.0	.0	.0	.0	*	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.9	6.2	2.5	.5	*	14.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.2	.0	.0	.0	.0	.3
1-2	.1	2.0	.9	.0	.0	.0	3.0
3-4	*	.8	1.6	.1	.0	.0	2.4
5-6	.0	.2	1.1	.3	*	.0	1.6
7	.0	.0	.4	.3	.0	.0	.7
8-9	.0	.0	.1	.2	*	.0	.4
10-11	.0	*	.1	.2	*	.0	.2
12	.0	.0	*	.1	.0	.0	.1
13-16	.0	*	*	*	.0	.0	.1
17-19	.0	*	.0	.0	.0	.0	*
20-22	.0	.0	.0	.0	*	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.3	4.1	1.2	.1	.0	8.9

HGT	TOTAL PCT
<1	
1-2	
3-4	
5-6	
7	
8-9	
10-11	
12	
13-16	
17-19	
20-22	
23-25	
26-32	
33-40	
41-48	
49-60	
61-70	
71-86	
87+	
TOT PCT	97.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.9	4.1	.3	.0	.0	.0	9.2	
1-2	1.2	19.6	7.9	.0	.0	.0	28.8	
3-4	.2	8.2	17.5	1.2	.0	.0	27.2	
5-6	*	1.8	11.4	3.4	.3	.0	16.9	
7	.1	.3	4.5	3.5	.4	.0	8.8	
8-9	.0	.2	1.2	2.0	.4	.1	3.8	
10-11	.0	.2	.5	1.5	.5	*	2.7	
12	.0	*	.1	.4	.2	*	.8	
13-16	.0	*	.2	.7	.2	*	1.2	
17-19	.0	.1	.0	.1	.1	.1	.4	
20-22	.0	.0	*	.0	.1	*	.2	
23-25	.0	.0	*	.0	*	.0	*	
26-32	.0	.0	.0	.0	.0	*	*	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								4485
TOT PCT	6.5	34.5	43.6	13.0	2.2	.3	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.7	4.3	7.2	5.4	4.2	1.9	1.4	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1256	5
6-7	*	1.0	4.1	6.2	6.0	4.0	3.1	1.2	1.8	.5	.2	.1	.2	*	.0	.0	.0	.0	.0	1390	7
8-9	.0	.2	2.1	3.5	4.1	2.9	2.3	1.6	1.6	.6	.4	*	.1	*	.0	.0	.0	.0	.0	931	8
10-11	.0	1.0	1.1	1.4	2.0	1.2	1.2	.8	1.5	.5	.3	.1	.1	.2	.1	.0	*	.0	.0	562	10
12-13	.0	.0	1.7	.6	.7	.7	.6	.3	.7	.3	.2	.1	.1	*	.0	.0	.0	.0	.0	300	9
>13	.0	.0	.0	.5	.7	.5	.3	.2	.4	.1	.2	.1	*	.1	.0	*	*	.0	.0	158	12
INDET	1.4	.5	.6	.8	.8	.5	.3	.1	.1	.1	.1	*	*	.0	.0	.0	.0	.0	.0	264	5
TOTAL																				4881	7
PCT	2.1	7.0	16.9	18.4	18.5	11.7	9.3	4.3	6.6	2.3	1.4	.4	.5	.4	.1	*	.1	.0	.0	100.0	

PERIOD: (PRIMARY) 1901-1978
(OVER-ALL) 1857-1978

TABLE 20

AREA 0025 AUCKLAND WEST
35.8S 172.9E

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
77/78	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	*
75/76	.7	.9	.8	.2	.0	.0	.0	.0	.0	.0	.0	.1	18	.2
73/74	2.7	7.7	2.7	1.4	.0	.0	.0	.0	.0	.0	.0	.1	95	1.1
71/72	8.3	12.9	12.0	3.7	.3	.0	.0	.0	.0	.0	.2	1.3	262	3.1
69/70	14.4	23.7	23.5	13.6	2.9	1.4	.0	.1	.6	.0	1.8	6.6	598	7.1
67/68	21.7	24.7	34.8	25.6	9.6	.9	.2	.1	.6	.1	3.7	13.5	922	11.0
65/66	19.1	16.3	14.5	30.2	18.4	2.9	.6	.2	.8	.9	7.6	21.4	887	10.6
63/64	13.0	9.8	8.4	18.1	30.2	19.1	4.8	2.1	3.4	8.0	21.5	27.7	1113	13.3
61/62	7.3	3.3	2.1	4.6	23.6	27.0	18.6	9.2	10.7	28.1	34.7	16.0	1281	15.3
59/60	6.3	.7	1.0	.9	11.0	28.8	34.0	21.4	34.0	36.1	21.4	9.3	1463	17.4
57/58	4.4	.2	.1	1.1	2.6	15.7	25.3	24.0	36.1	19.4	5.8	3.0	1019	12.1
55/56	.1	.0	.0	.8	.5	2.6	8.3	17.8	9.6	3.7	2.1	.6	359	4.3
53/54	.0	.0	.0	.0	.2	.9	3.6	15.8	1.5	1.7	.5	.3	209	2.5
51/52	.0	.0	.0	.0	.8	.2	2.6	8.5	.8	.5	.5	.0	115	1.4
49/50	.0	.0	.0	.0	.0	.2	.9	.3	1.5	.5	.2	.0	25	.3
47/48	.0	.0	.0	.0	.0	.5	.9	.0	.3	.9	.2	.0	19	.2
45/46	.0	.0	.0	.0	.0	.0	.3	.4	.2	.2	.0	.0	9	.1
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	702	583	773	656	656	656	665	943	656	815	622	668	8395	100.0
MEAN	65.9	68.0	67.8	66.1	63.2	60.5	58.6	56.8	58.5	59.5	61.6	64.1	62.5	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1014	1014	1014	1014	1013	1013	1014	1014	1014	719
FEB	1016	1018	1016	1015	1017	1017	1016	1016	1016	654
MAR	1018	1015	1017	1018	1018	1018	1017	1017	1017	740
APR	1017	1016	1016	1016	1017	1018	1015	1016	1016	881
MAY	1015	1013	1016	1015	1016	1015	1015	1018	1016	742
JUN	1015	1015	1014	1013	1015	1015	1013	1012	1014	668
JUL	1015	1015	1014	1015	1016	1014	1017	1015	1015	797
AUG	1016	1014	1015	1015	1015	1014	1015	1016	1015	804
SEP	1015	1008	1014	1013	1015	1012	1015	1013	1014	749
OCT	1018	1013	1016	1014	1017	1014	1014	1016	1016	659
NOV	1016	1015	1015	1014	1016	1016	1015	1015	1015	718
DEC	1015	1012	1013	1012	1015	1014	1014	1014	1014	653
ANN	1016	1014	1015	1015	1016	1015	1015	1015	1015	8784
OBS	2373	307	1810	650	1282	336	1476	550		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	990	994	1002	1010	1015	1018	1024	1027	1029
FEB	991	1000	1005	1013	1017	1020	1024	1027	1030
MAR	994	999	1006	1014	1018	1022	1026	1029	1031
APR	990	995	1002	1013	1017	1022	1027	1030	1033
MAY	984	996	1000	1011	1016	1022	1027	1030	1034
JUN	987	992	998	1009	1014	1020	1028	1031	1034
JUL	987	990	998	1008	1016	1023	1029	1035	1038
AUG	983	990	1001	1009	1015	1022	1029	1033	1038
SEP	990	995	999	1009	1014	1020	1027	1034	1036
OCT	995	998	1002	1011	1017	1022	1029	1034	1037
NOV	993	997	1002	1011	1016	1020	1026	1028	1030
DEC	994	999	1003	1010	1015	1018	1023	1026	1029

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	10.5	.0	.8	.0	.0	.0	.0	11.3	1.6	1.4	5.3	.0	2.5	.0		77.8
NE	2.3	1.9	6.1	.0	.0	.0	.0	10.4	.8	.0	1.7	1.7	.8	.0		84.6
E	4.4	5.0	7.6	.0	.0	.0	.0	16.5	3.7	.0	3.3	.0	.0	.0		76.5
SE	4.5	1.8	2.2	.0	.0	.0	.0	8.5	3.1	.0	3.8	.0	.2	.0		84.3
S	2.6	1.5	.0	.0	.0	.0	.0	4.1	.0	.0	3.0	.0	1.3	.0		91.7
SW	1.3	1.8	.4	.0	.0	.0	.0	3.5	.0	.0	.4	.0	.0	.4		95.6
W	.6	1.8	.0	.0	.0	.0	.0	2.4	.0	.0	4.2	.0	.0	.0		93.5
NW	3.0	.7	2.9	.0	.0	.0	.0	6.6	.7	.2	6.8	.0	2.1	.0		83.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	5.3	.0	.0	.0	.0	5.3	.0	.0	.0	.0	.0	.0		94.7
TOT PCT	3.2	1.9	2.5	.0	.0	.0	.0	7.5	1.1	.2	3.2	.2	.7	.1		87.0
TOT OBS:	1235															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	2.1	2.7	2.4	.0	.0	.0	.0	7.2	1.5	.0	2.7	.6	.6	.0		87.4
06&09	3.1	2.0	2.7	.0	.0	.0	.0	7.5	2.0	.0	2.4	.0	2.0	.3		85.8
12&15	3.3	3.0	1.7	.0	.0	.0	.0	7.9	.3	.7	5.9	.0	.3	.0		84.8
18&21	4.7	.3	2.9	.0	.0	.0	.0	7.8	.9	.0	2.3	.0	.0	.3		88.7
TOT PCT	3.3	2.0	2.4	.0	.0	.0	.0	7.6	1.2	.2	3.3	.2	.7	.2		86.8
TOT OBS:	1276															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	2.2	5.4	2.3	.5	.0	.0		10.4	8.4	9.1	20.8	19.7	12.4	9.8	9.0	9.7	4.1
NE	2.3	3.9	2.0	.3	.2	.0		8.8	8.6	10.3	9.2	12.9	7.1	8.6	6.9	8.0	8.2
E	2.7	4.7	4.6	1.4	.5	.1		14.0	12.1	15.4	17.9	15.7	11.6	16.1	12.0	13.4	11.0
SE	1.0	3.5	2.9	.6	.1	.0		8.2	11.0	6.6	6.3	9.5	4.5	7.3	9.3	11.5	12.2
S	3.0	4.5	2.9	.3	.3	.0		11.1	8.9	14.2	2.1	6.5	11.1	10.8	11.3	11.8	14.2
SW	4.3	6.9	5.4	.7	*	.0		17.4	9.1	16.3	13.3	7.1	22.0	17.5	18.5	14.6	22.4
W	3.0	4.9	5.3	1.0	.1	.0		14.3	10.9	15.0	14.6	16.9	15.9	14.1	13.2	12.6	12.8
NW	2.3	4.4	5.2	.4	.1	.0		12.4	10.0	9.7	13.3	17.6	11.5	13.8	13.4	14.0	10.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.4							3.4	.0	3.2	2.5	.0	3.8	2.1	6.3	4.4	4.3
TOT OBS	385	608	489	84	21	1	1588		9.6	309	120	105	237	286	142	159	235
TOT PCT	24.2	38.3	30.8	5.3	1.3	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	5.0	4.3	1.1	.1	.0		10.4	8.4	12.4	13.5	9.3	6.4
NE	4.5	3.2	.7	.2	.1		8.8	8.6	10.1	8.8	8.0	8.1
E	4.5	5.6	3.1	.6	.3		14.0	12.1	16.1	12.9	14.7	12.0
SE	3.0	3.4	1.3	.4	.0		8.2	11.0	6.5	6.1	8.1	11.9
S	5.5	4.2	1.0	.3	.1		11.1	8.9	10.8	9.1	10.9	13.2
SW	7.6	7.1	2.4	.3	.0		17.4	9.1	15.4	17.5	17.8	19.2
W	4.8	6.0	3.4	.3	.0		14.3	10.9	14.9	16.2	13.8	12.7
NW	4.4	6.1	1.8	.1	.0		12.4	10.0	10.7	13.4	13.7	12.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.4						3.4	.0	3.0	2.6	3.5	4.4
TOT OBS	680	633	235	34	6	1588		9.6	429	342	428	389
TOT PCT	42.8	39.9	14.8	2.1	.4		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.0	25.2	37.5	28.7	3.5	2.1	.0	9.2	100.0	429
06&09	2.6	25.4	34.5	31.9	4.7	.9	.0	9.2	100.0	342
12&15	3.5	10.0	45.8	34.1	5.1	1.4	.0	10.3	100.0	428
18&21	4.4	23.9	34.2	28.5	8.0	.8	.3	9.6	100.0	389
TOT	54	331	608	489	84	21	1	9.6		1588
PCT	3.4	20.8	38.3	30.8	5.3	1.3	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.4	2.4	2.6	2.2		4.6
NE	2.1	2.2	2.1	3.0		5.0
E	2.5	3.1	5.0	6.0		5.6
SE	3.6	2.1	4.0	2.2		4.2
S	4.3	1.2	2.0	.9		3.4
SW	8.1	2.1	2.8	.6		2.5
W	6.9	2.2	4.1	1.3		3.3
NW	3.4	2.0	5.3	2.2		4.6
VAR	.0	.0	.0	.0		.0
CALM	1.3	1.0	.6	.0		3.0
TOT OBS	182	97	150	96	525	4.1
TOT PCT	34.7	18.5	28.6	18.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.2	.3	1.3	.5	.3	.3	.1	.0	.0	6.7	
NE	.2	.0	.2	.8	1.2	.2	.4	.0	.0	.0	6.4	
E	.2	.0	.6	2.0	4.2	1.6	.4	.0	.0	.2	7.4	
SE	.0	.0	.4	1.4	1.1	.7	.2	.2	.0	.0	8.0	
S	.0	.0	.1	.6	.9	.3	.0	.0	.0	.0	6.5	
SW	.0	.0	*	.9	.6	.2	.0	.1	.0	.0	11.7	
W	.0	.0	.2	.9	1.1	.5	.1	.3	.0	.0	12.0	
NW	.2	.0	.2	1.1	2.2	.7	.3	.1	.2	.0	8.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	2.5	
TOT OBS	3	1	11	49	63	24	10	4	1	1	362	525
TOT PCT	.6	.2	2.1	8.4	12.0	4.6	1.9	.8	.2	.2	69.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.2	.4	.4	.4	.4	.4	.4	.4
= OR >5000	.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1
= OR >3500	2.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0
= OR >2000	6.1	7.4	7.4	7.4	7.4	7.4	7.4	7.4
= OR >1000	14.6	18.0	18.9	19.3	19.3	19.3	19.3	19.3
= OR >600	17.4	24.1	26.7	27.6	27.6	27.6	27.6	27.6
= OR >300	18.0	25.0	28.5	29.6	29.6	29.6	29.6	29.6
= OR >150	18.0	25.2	28.7	29.8	29.8	29.8	29.8	29.8
= OR > 0	18.0	25.2	28.9	30.2	30.2	30.2	30.4	30.4
TOTAL	97	136	156	163	163	163	164	164

TOTAL NUMBER OF OBS: 540 PCT FREQ NH <5/8: 69.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
17.9	19.3	16.1	9.5	7.0	5.2	5.4	6.4	13.6 .4	560

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	*	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	
<1/2	NO PCP	.1	.1	.1	*	.0	.0	.0	.1	.0	.0	.4	
	TOT %	.2	.1	.1	*	.0	.0	.0	.2	.0	.0	.5	
	PCP	*	.1	.2	.0	.0	.0	.0	.1	.0	.0	.4	
1/2<1	NO PCP	.2	.1	.3	.3	.2	.0	*	.1	.0	.0	1.2	
	TOT %	.2	.2	.5	.3	.2	.0	*	.2	.0	.0	1.6	
	PCP	.2	.0	.2	.0	.0	.0	.1	.2	.0	.0	.6	
1<2	NO PCP	.1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	TOT %	.2	.0	.2	.0	.0	.0	.1	.4	.0	.0	.9	
	PCP	.3	*	.4	.2	.0	.1	.2	.1	.0	.1	1.3	
2<5	NO PCP	.2	.1	.2	.2	.4	.3	.4	*	.0	.0	1.9	
	TOT %	.5	.1	.6	.4	.4	.4	.6	.1	.0	.1	3.2	
	PCP	.3	.5	1.2	.3	.4	.5	.1	.1	.0	.1	3.4	
5<10	NO PCP	2.8	3.0	4.5	1.8	1.4	2.9	2.5	2.9	.0	.8	22.6	
	TOT %	3.2	3.5	5.6	2.1	1.8	3.4	2.6	3.0	.0	.9	26.0	
	PCP	.2	.4	.5	.3	.1	.1	.0	.2	.0	.0	1.7	
10+	NO PCP	5.3	5.3	6.7	6.0	8.5	14.6	10.3	7.3	.0	2.1	66.0	
	TOT %	5.6	5.7	7.1	6.2	8.5	14.7	10.3	7.4	.0	2.1	67.7	
	TOT OBS												1293
	TOT PCT	9.9	9.6	14.1	9.1	10.9	18.5	13.6	11.3	.0	3.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.1	.1	.0	.0	.0	.0	.0	.1	.0		.2	
	11-21	*	.0	.1	*	.0	.0	.0	*	.0		.2	
	22+	*	.0	.0	.0	.0	.0	.0	*	.0		.1	
	TOT %	.2	.1	.1	*	.0	.0	.0	.2	.0	.0	.5	
	0-3	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.2	
1/2<1	4-10	.2	.2	.2	.2	.0	.0	.0	.1	.0		.9	
	11-21	.0	.0	.2	.1	.1	*	.1	.1	.0		.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.2	.5	.3	.2	*	.1	.2	.0	.0	1.7	
	0-3	.0	.0	.1	.0	.0	.0	.0	.2	.0	.0	.2	
1<2	4-10	.1	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	11-21	.2	.0	.1	.0	.0	.0	.0	.2	.0		.4	
	22+	.0	.1	.0	.2	.0	.0	.1	.0	.0		.3	
	TOT %	.2	.1	.2	.2	.0	.0	.1	.5	.0	.0	1.2	
	0-3	.0	.1	.1	.0	.0	.1	.4	*	.0	.1	.8	
2<5	4-10	.2	.0	.1	.1	.1	.0	.0	.1	.0		.6	
	11-21	.3	*	.1	.2	.2	.2	.2	*	.0		1.2	
	22+	.0	.1	.3	.1	.1	.2	.0	.0	.0		.7	
	TOT %	.5	.2	.6	.4	.4	.4	.6	.1	.0	.1	3.2	
	0-3	.8	.7	1.1	.5	.4	.5	.3	.5	.0	.9	5.5	
5<10	4-10	1.5	1.6	1.8	1.0	.8	1.1	1.1	.8	.0		9.7	
	11-21	.6	.7	1.4	.4	.4	1.2	.8	1.4	.0		6.9	
	22+	.3	.4	1.2	.3	.3	.5	.4	.3	.0		3.6	
	TOT %	3.1	3.4	5.6	2.1	1.8	3.4	2.5	3.0	.0	.9	25.8	
	0-3	1.4	1.9	1.3	.7	2.9	4.6	2.6	1.7	.0	2.1	19.1	
10+	4-10	3.0	2.4	2.9	2.4	3.2	6.0	3.1	2.8	.0		25.8	
	11-21	1.1	1.4	2.8	2.7	1.8	3.7	4.0	3.0	.0		20.6	
	22+	.1	.0	.4	.2	.4	.1	.7	.1	.0		2.1	
	TOT %	5.7	5.7	7.4	6.1	8.3	14.4	10.4	7.7	.0	2.1	67.6	
	TOT OBS												1264
	TOT PCT	9.9	9.7	14.2	9.1	10.6	18.2	13.7	11.6	.0	3.0	100.0	

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PERIOD: (PRIMARY) 1928-1978
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	.0	8.8	7.9	2.6	.0	.9	.9	.0	21.1	78.9	114
06&09	.0	.0	2.4	8.9	15.4	4.9	1.6	.8	.0	.8	35.0	65.0	123
12&15	.7	.0	2.0	6.8	8.8	6.1	2.0	.0	.0	.0	26.5	73.5	147
18&21	1.2	.6	3.0	8.3	14.2	4.1	3.0	1.2	.0	.0	35.5	64.5	169
TOT	3	1	11	45	65	25	10	4	1	1	166	387	553
PCT	.5	.2	2.0	8.1	11.8	4.5	1.8	.7	.2	.2	30.0	70.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	1.8	1.2	2.1	27.9	66.9	341
06&09	.7	1.0	1.0	5.0	27.8	64.6	302
12&15	.6	3.5	1.0	1.6	31.8	61.5	314
18&21	.6	.3	1.4	4.0	18.7	74.9	347
TOT	7	21	15	41	344	876	1304
PCT	.5	1.6	1.2	3.1	26.4	67.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	.0	10.9	10.9	78.2	110
06&09	.0	2.5	13.2	22.3	64.5	121
12&15	.7	2.8	10.6	17.7	71.6	141
18&21	1.2	5.4	17.3	19.6	63.1	168
TOT	3	16	72	97	371	540
PCT	.6	3.0	13.3	18.0	68.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.1	.3	.5	.9	.3	23	2.1
75/79	.0	.1	.0	.4	1.3	1.8	1.7	1.7	80	7.3
70/74	.0	.1	.3	1.1	3.8	5.9	7.6	10.2	319	29.0
65/69	.0	.0	.0	.7	4.5	8.4	14.7	17.0	498	45.3
60/64	.0	.0	.0	.9	2.6	3.9	3.8	4.8	170	15.5
55/59	.0	.0	.1	.0	.3	.1	.3	.1	9	.8
TOTAL	0	2	4	31	140	227	320	375	1099	100.0
PCT	.0	.2	.4	2.8	12.7	20.7	29.1	34.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.4	.0	.0	.5	.4	.4	.3	.0	.1
.7	.6	.7	.3	1.2	1.4	1.3	.6	.0	.4
4.0	3.1	4.7	1.6	2.4	4.7	3.9	3.3	.0	1.3
4.8	4.4	6.7	3.8	3.9	7.5	6.1	7.0	.0	1.1
.3	.5	1.6	2.5	3.1	3.5	3.1	.9	.0	.2
.0	.0	.1	.3	.1	.3	.0	.0	.0	.0
9.8	8.9	13.7	8.5	11.3	17.8	14.9	12.1	.0	3.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	85	82	79	70	64	61	50	70.6	458
06&09	85	79	75	69	63	58	50	68.7	351
12&15	74	73	71	66	61	59	58	66.2	411
18&21	88	79	74	67	62	59	57	67.4	405
TOT	88	80	76	68	62	59	50	68.3	1625

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	8.2	20.5	24.6	23.9	22.9	78	293
06&09	.0	3.1	8.0	22.9	28.6	37.4	84	262
12&15	.0	.0	10.0	17.2	34.1	38.7	84	281
18&21	.0	1.9	10.5	17.9	30.4	39.3	84	313
TOT	0	38	140	293	329	389	82	1129

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA THP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
14/16	.0	.0	.0	.0	.0	.2	.1	.1	.0	4	.0	.5
11/13	.0	.0	.0	.0	.1	.1	.2	.2	.2	8	.0	.9
9/10	.0	.0	.0	.0	.1	.6	.0	.8	.1	14	.0	1.7
7/8	.0	.0	.0	.1	.2	.9	.8	.0	.0	18	.0	2.1
6	.0	.0	.0	.0	.0	.2	.7	.1	.0	9	.1	.9
5	.0	.0	.0	.0	.6	1.8	1.1	.1	.0	30	.1	3.4
4	.0	.0	.0	.5	1.1	3.7	.5	.0	.0	48	.1	5.6
3	.0	.0	.0	.0	1.7	2.5	.8	.1	.0	43	.2	4.9
2	.0	.0	.0	.9	5.1	5.7	1.3	.0	.0	110	1.1	12.0
1	.0	.0	.1	.7	5.0	4.5	.5	.0	.0	91	.6	10.2
0	.0	.0	.1	2.5	7.3	4.9	.6	.0	.0	130	1.4	14.0
-1	.0	.0	.1	1.8	8.2	2.1	.1	.0	.0	104	.8	11.5
-2	.0	.0	.0	3.1	6.7	1.7	.0	.0	.0	97	.4	11.1
-3	.0	.0	.1	1.8	2.8	.5	.1	.0	.0	45	.0	5.3
-4	.0	.0	.0	2.8	2.2	.4	.0	.0	.0	46	.0	5.4
-5	.0	.0	.5	1.3	1.2	.2	.0	.0	.0	27	.0	3.2
-6	.0	.0	.2	.0	.2	.0	.0	.0	.0	4	.0	.5
-7/-8	.1	.0	.0	.6	.2	.0	.0	.0	.0	8	.0	.9
-9/-10	.0	.0	.0	.9	.0	.0	.0	.0	.0	8	.0	.9
TOTAL	1		10		382		58		4		41	804
		0		144		253		13		845		
PCT	.1	.0	1.2	17.0	42.8	29.9	6.9	1.5	.5	100.0	4.9	95.1

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.9	.0	.0	.0	.0	1.5
1-2	.6	2.8	.8	.0	.0	.0	4.2
3-4	.0	1.2	1.4	.2	.0	.0	2.8
5-6	.0	.2	.4	.0	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.2	.0	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.2	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	5.3	3.0	.2	.0	.0	9.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.6	.0	.0	.0	.0	1.1
1-2	.3	2.5	.3	.0	.0	.0	3.0
3-4	.0	.6	1.3	.0	.0	.0	2.0
5-6	.0	.2	1.8	.0	.0	.0	2.0
7	.2	.0	.5	.0	.0	.0	.7
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.2	.1	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	4.2	3.9	.5	.1	.0	9.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.6	.0	.0	.0	.0	1.0
1-2	.0	4.0	1.0	.0	.0	.0	5.0
3-4	.0	1.3	3.6	.4	.0	.0	5.3
5-6	.0	.0	1.8	.4	.0	.0	2.2
7	.0	.2	1.2	.2	.0	.0	1.6
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.2	.4	.0	.6
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.2	.4	.0	.6
17-19	.0	.2	.0	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	6.3	7.6	2.3	.8	.0	17.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.9	.0	.0	.0	.0	1.1
1-2	.2	2.3	.8	.0	.0	.0	3.2
3-4	.0	.7	3.4	.2	.0	.0	4.3
5-6	.0	.2	2.3	.0	.0	.0	2.5
7	.0	.2	.3	.3	.1	.0	.8
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.3	6.7	1.0	.1	.0	12.5

PERIOD: (OVER-ALL) 1963-1978 JANUARY AREA 0026 AUCKLAND EAST

TABLE 18 (CONT) 36.1S 175.4E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.5	.3	.5	.0	.0	.0	.0	.8
1-2	.0	1.7	.4	.0	.0	.0	2.1	.3	2.6	1.7	.0	.0	.0	4.6
3-4	.0	.5	1.4	.0	.0	.0	2.1	.0	1.8	2.5	.2	.0	.0	4.6
5-6	.0	.2	1.2	.2	.0	.0	1.7	.0	.2	1.4	.3	.0	.0	1.9
7	.0	.0	.5	.6	.4	.0	1.5	.0	.0	.2	.2	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.8	3.7	.8	.8	.0	8.3	.5	5.2	6.1	1.0	.1	.0	12.8

	W							NW							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.5	.0	.0	.0	.0	.8	.5	.5	.0	.0	.0	.0	1.0	
1-2	.4	2.6	3.5	.0	.0	.0	6.5	.2	3.4	1.5	.0	.0	.0	5.1	
3-4	.0	1.0	2.7	.0	.0	.0	3.7	.0	.6	2.2	.0	.0	.0	2.7	
5-6	.0	.0	.8	.2	.0	.0	1.0	.0	.4	2.6	.0	.0	.0	3.1	
7	.0	.0	.4	.4	.4	.0	1.2	.0	.0	.4	.1	.0	.0	.5	
8-9	.0	.0	.6	.4	.0	.0	1.0	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.4	.2	.0	.0	.6	.0	.0	.1	.0	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	4.1	8.4	1.1	.4	.0	14.7	.7	5.0	6.8	.1	.0	.0	12.5	97.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.8	4.9	.0	.0	.0	.0	11.7	
1-2	2.1	21.6	9.7	.0	.0	.0	33.5	
3-4	.0	7.6	18.4	1.1	.0	.0	27.1	
5-6	.0	1.5	12.1	1.1	.0	.0	14.6	
7	.2	.4	3.4	1.7	.8	.0	6.6	
8-9	.0	.0	.8	1.3	.0	.0	2.1	
10-11	.0	.0	.6	.8	.4	.0	1.9	
12	.0	.2	.0	.4	.0	.0	.6	
13-16	.0	.2	.0	.2	.8	.0	1.3	
17-19	.0	.2	.2	.2	.0	.0	.6	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.1	36.7	45.3	6.8	2.1	.0	100.0	472

PERIOD: (OVER-ALL) 1949-1978 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.0	10.2	13.0	10.6	5.7	.8	.8	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	223	4
6-7	.0	.8	4.3	7.3	7.1	2.2	2.4	1.2	.6	.6	.0	.2	.0	.0	.0	.0	.0	.0	.0	135	7
8-9	.0	.6	2.8	3.1	3.1	2.6	2.2	.4	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	78	7
10-11	.0	2.4	.8	1.0	.4	.4	1.0	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	5
12-13	.0	.0	1.2	.0	.4	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	5
>13	.0	.0	.0	.6	.2	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	8
INDET	1.4	.8	.8	.2	1.0	.4	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	4
TOTAL	17	75	116	116	91	32	34	11	10	6	0	1	0	0	0	0	0	0	0	509	5
PCT	3.3	14.7	22.8	22.8	17.9	6.3	6.7	2.2	2.0	1.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1930-1978
(OVER-ALL) 1858-1978

AREA 0026 AUCKLAND EAST
36.0S 175.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	3.4	3.1	2.3	.0	.0	.0	.0	8.8	.9	.0	13.5	.0	1.0	.0		75.8
NE	7.9	2.4	1.2	.0	.0	.0	.0	11.5	2.9	1.0	1.4	.0	1.4	.0		83.5
E	5.1	4.4	3.4	.0	.0	.0	.0	12.9	1.4	.0	1.1	.0	2.5	.0		82.0
SE	2.3	4.3	.7	.0	.0	.0	.0	7.3	3.1	.9	4.5	.0	1.6	.0		82.7
S	2.6	.0	1.5	.0	.0	.0	.0	4.0	1.1	1.8	5.5	.0	1.3	.0		86.6
SW	2.3	.7	.7	.0	.0	.0	.0	3.8	.2	1.3	1.8	.0	.9	.0		92.5
W	3.0	1.6	.2	.0	.0	.0	.0	5.6	3.7	.5	2.3	.0	.7	.0		87.2
NW	.3	4.5	1.6	.0	.0	.0	.0	6.5	2.7	.0	1.8	.0	.0	.0		89.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0		96.3
TOT PCT	3.3	2.6	1.6	.0	.0	.0	.0	7.5	1.8	.7	3.6	.0	1.4	.0		85.2
TOT OBS:	1016															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	1.6	3.2	1.6	.0	.0	.0	.0	6.5	1.2	.0	4.8	.0	1.6	.0		85.9
06&09	2.2	1.8	1.5	.0	.0	.0	.0	5.5	3.0	.4	2.2	.0	2.2	.0		86.7
12&15	4.5	3.8	1.5	.0	.0	.0	.0	9.8	1.1	2.3	5.6	.0	.8	.0		81.2
18&21	4.9	1.5	1.5	.0	.0	.0	.0	7.9	1.5	.0	3.0	.0	.7	.0		86.9
TOT PCT	3.3	2.6	1.5	.0	.0	.0	.0	7.4	1.7	.7	3.9	.0	1.3	.0		85.2
TOT OBS:	1052															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.2	5.4	3.0	.8	.1	.0		10.5	10.4	10.5	20.0	11.9	10.0	11.1	9.2	8.9	6.5
NE	.6	5.5	3.8	.6	*	.0		10.5	11.0	9.0	11.3	7.7	12.6	11.1	18.1	7.4	9.8
E	1.2	8.0	7.5	2.0	.3	.0		19.0	12.8	17.1	19.1	27.6	13.2	24.6	16.3	19.3	14.0
SE	2.3	6.1	4.4	1.0	.1	.1		13.8	10.7	17.6	21.6	11.2	10.8	9.9	11.0	16.1	15.5
S	1.8	6.1	3.2	1.2	.2	.0		12.4	10.9	13.0	3.4	8.0	12.2	13.0	13.1	19.0	12.6
SW	3.1	4.9	4.3	.5	.0	.0		12.8	9.0	14.3	8.4	4.2	19.3	9.3	16.3	10.6	18.2
W	1.8	4.5	2.6	1.1	*	.0		10.1	10.0	9.8	5.9	13.1	12.1	7.2	7.8	9.1	14.8
NW	1.3	3.5	3.1	.3	.1	.0		8.3	10.4	7.1	9.1	12.1	8.0	9.5	6.4	7.0	7.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.5							2.5	.0	1.6	1.3	4.2	1.7	4.2	1.8	2.7	1.2
TOT OBS	205	572	415	97	12	1	1302		10.5	252	80	143	172	236	109	149	161
TOT PCT	15.7	43.9	31.9	7.5	.9	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

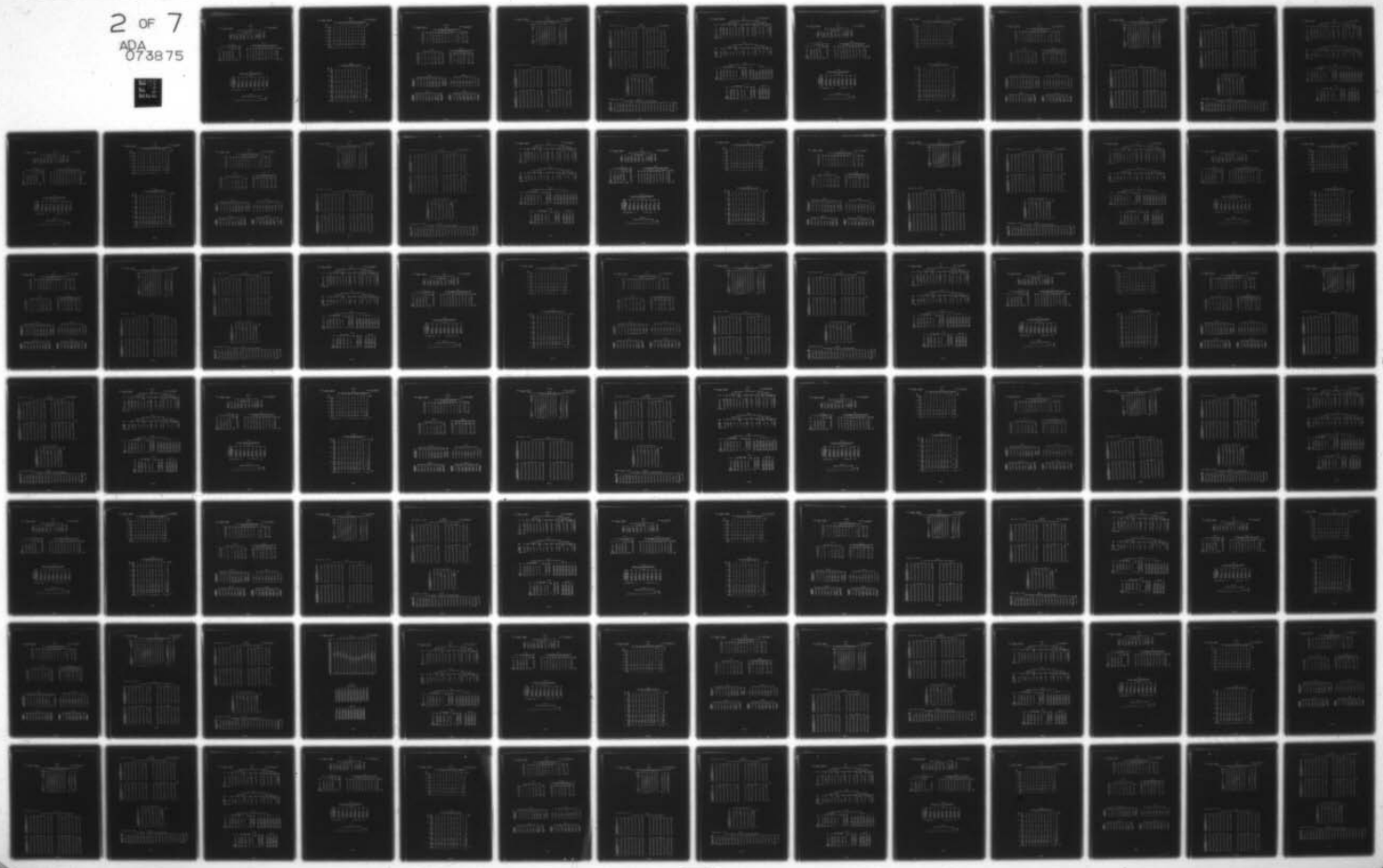
TABLE 3A

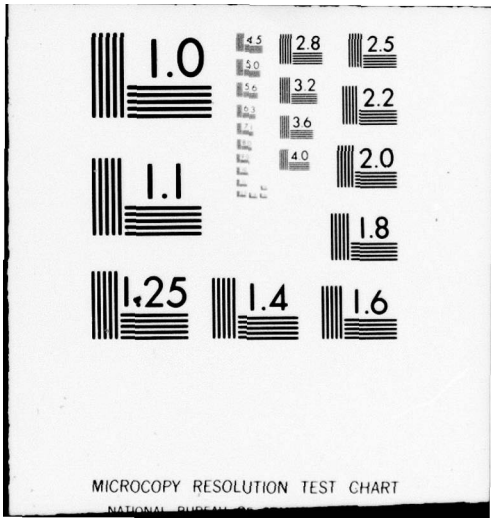
	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.0	4.4	1.8	.2	.1		10.5	10.4	12.8	10.9	10.5	7.7
NE	2.8	5.6	1.9	.2	.0		10.5	11.0	9.6	10.4	13.3	8.6
E	4.0	9.7	4.1	1.2	.1		19.0	12.8	17.5	19.8	22.0	16.5
SE	4.4	6.8	2.2	.3	.1		13.8	10.7	18.5	11.0	10.2	15.8
S	4.2	5.6	2.0	.3	.2		12.4	10.9	10.7	10.3	13.0	15.6
SW	5.7	5.4	1.7	.0	.0		12.8	9.0	12.9	12.5	11.5	14.5
W	4.1	4.4	1.4	.1	*		10.1	10.0	8.9	12.5	7.4	12.0
NW	2.9	4.2	1.0	.1	.1		8.3	10.4	7.6	9.8	8.6	7.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.5						2.5	.0	1.5	2.9	3.5	1.9
TOT OBS	451	601	209	33	8	1302		10.5	332	315	345	310
TOT PCT	34.6	46.2	16.1	2.5	.6		100.0		100.0	100.0	100.0	100.0

AD-A073 875 NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO), SELECTE--ETC(U)
SEP 79

UNCLASSIFIED NL

2 OF 7
ADA 073875




1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
6.3
MICROCOPY RESOLUTION TEST CHART

FEBRUARY

PERIOD: (PRIMARY) 1930-1978
(OVER-ALL) 1858-1978

AREA 0026 AUCKLAND EAST
36,05 175,6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.5	19.3	42.5	26.5	10.2	.0	.0	9.8	100.0	332
06&09	2.9	12.7	41.0	36.2	6.3	.6	.3	10.9	100.0	315
12&15	3.5	7.5	49.6	32.2	5.5	1.7	.0	10.8	100.0	345
18&21	1.9	13.9	42.3	32.9	7.7	1.3	.0	10.7	100.0	310
TOT	32	173	572	415	97	12	1	10.5		1302
PCT	2.5	13.3	43.9	31.9	7.5	.9	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.4	1.7	3.5	1.1		4.5
NE	1.7	2.8	3.0	2.9		5.1
E	4.2	4.8	7.1	5.3		5.0
SE	5.1	1.8	5.1	1.8		4.2
S	6.1	2.1	4.2	2.7		3.9
SW	3.1	1.8	2.6	.7		3.7
W	4.7	1.3	3.7	1.3		3.8
NW	4.4	.6	2.5	2.7		4.1
VAR	.0	.0	.0	.0		.0
CALM	.8	.6	1.2	.6		4.8
TOT OBS	165	88	166	88	507	4.3
TOT PCT	32.5	17.4	32.7	17.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.3	.8	.9	1.0	.1	.0	.0	.0	3.3	
NE	.0	.0	.4	.9	1.2	.3	.2	.0	.0	.0	6.6	
E	.1	.0	1.3	1.6	3.3	1.8	.5	.0	.0	.0	12.6	
SE	.2	.0	.5	.5	2.5	.8	.2	.0	.0	.0	8.9	
S	.0	.0	.5	.9	1.9	1.2	.6	.0	.0	.0	9.5	
SW	.0	.0	.0	.4	1.0	.2	.0	.0	.0	.2	6.1	
W	.0	.0	.0	1.0	.9	.5	.1	.0	.2	.0	8.1	
NW	.0	.0	.2	1.3	.8	.3	.4	.0	.0	.0	6.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	
CALM	.0	.0	.0	.0	.4	.2	.2	.0	.0	.0	2.4	
TOT OBS	2	0	17	40	66	33	13	0	1	1	334	507
TOT PCT	.4	.0	3.4	7.9	13.0	6.5	2.6	.0	.2	.2	65.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.2	.4	.4	.4	.4	.4	.4	.4
= OR >5000	.2	.4	.4	.4	.4	.4	.4	.4
= OR >3500	2.5	2.9	2.9	2.9	2.9	2.9	2.9	2.9
= OR >2000	7.2	8.7	9.1	9.1	9.3	9.3	9.3	9.3
= OR >1000	16.9	21.1	21.9	21.9	22.1	22.1	22.1	22.1
= OR >600	22.1	28.5	29.7	29.7	29.8	29.8	29.8	29.8
= OR >300	23.2	30.0	32.7	32.9	33.3	33.3	33.3	33.3
= OR >150	23.2	30.0	32.7	32.9	33.3	33.3	33.3	33.3
= OR > 0	23.2	30.2	32.9	33.3	33.7	33.7	33.7	33.7
TOTAL	122	159	173	175	177	177	177	177

TOTAL NUMBER OF OBS: 526 PCT FREQ NH <5/8: 66.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.8	22.6	15.4	9.9	7.0	6.1	5.9	7.5	13.5 .2	597

PERIOD: (PRIMARY) 1930-1978
(OVER-ALL) 1858-1978

AREA 0026 AUCKLAND EAST
36.0S 175.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.3	
1/2<1	PCP	*	*	.1	.0	.0	.0	.0	.1	.0	.0	.3	
	NO PCP	1.0	.0	.1	.1	.2	.1	.0	.1	.0	.0	1.6	
	TOT %	1.0	*	.2	.1	.2	.1	.0	.2	.0	.0	1.9	
1<2	PCP	.1	.1	.2	*	.0	.0	.1	*	.0	.0	.6	
	NO PCP	*	*	.1	.1	.2	.0	.0	.0	.0	.1	.6	
	TOT %	.2	.2	.3	.1	.2	.0	.1	*	.0	.1	1.2	
2<5	PCP	.4	.1	.9	.2	.2	.1	.1	.1	.0	.0	2.2	
	NO PCP	.2	*	.2	.1	.9	.4	.0	*	.0	.0	1.3	
	TOT %	.6	.1	1.1	.3	.5	.6	.1	.1	.0	.0	3.4	
5<10	PCP	.2	.5	.3	.5	.1	.4	.3	.1	.0	.0	2.5	
	NO PCP	2.2	3.1	3.2	3.9	2.0	3.3	1.8	1.3	.0	.7	21.6	
	TOT %	2.4	3.6	3.5	4.4	2.1	3.7	2.1	1.5	.0	.7	24.0	
10+	PCP	*	.3	.8	.2	.2	.0	.2	.2	.0	.0	1.9	
	NO PCP	5.2	5.8	11.5	8.9	10.2	9.4	8.2	6.9	.0	1.9	67.3	
	TOT %	5.2	6.1	12.3	9.1	10.4	9.4	8.4	6.4	.0	1.9	69.2	
	TOT OBS												1016
	TOT PCT	9.5	10.3	17.4	14.2	13.4	13.8	10.6	8.3	.0	2.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.2	.0	.1	.0	.0	.1	.0	.0		.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.2	.0	.1	.0	.0	.1	.0	.0	.1	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.7	.0	.0	.0	.2	.1	.0	.1	.0		1.1	
	11-21	.3	*	.1	.0	.0	.0	.0	.1	.0		.6	
	22+	.1	*	.1	.1	.0	.0	.0	.0	.0		.3	
	TOT %	1.1	.1	.2	.1	.2	.1	.0	.2	.0	.0	1.9	
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
	4-10	*	*	.1	.2	.1	.0	.0	.1	.0		.6	
	11-21	.0	.0	.1	*	.0	.0	.0	.0	.0		.2	
	22+	.2	.1	.0	*	.2	.0	.1	*	.0		.7	
	TOT %	.3	.2	.3	.3	.3	.0	.1	.1	.0	.1	1.7	
2<5	0-3	.1	*	.0	.0	.2	.5	.0	.0	.0	.0	.8	
	4-10	.2	.1	.2	*	.2	*	.0	.0	.0		.7	
	11-21	.1	*	.2	.3	.0	*	.1	.1	.0		.9	
	22+	.2	.1	.7	*	.2	.0	.0	.0	.0		1.2	
	TOT %	.6	.2	1.1	.3	.5	.6	.1	.1	.0	.0	3.5	
5<10	0-3	.5	.1	.2	.6	.2	.5	.6	.4	.0	.7	3.8	
	4-10	1.3	1.5	1.0	1.6	1.0	1.1	.9	.8	.0		9.0	
	11-21	.6	1.8	2.0	1.7	.5	1.9	.4	.3	.0		9.2	
	22+	*	.2	.3	.6	.5	.1	.1	.0	.0		1.8	
	TOT %	2.4	3.6	3.6	4.3	2.1	3.6	2.0	1.5	.0	.7	23.9	
10+	0-3	.5	.3	.9	1.5	1.6	2.7	1.6	1.0	.0	1.8	12.0	
	4-10	3.0	3.8	5.7	4.7	4.9	4.1	3.8	2.4	.0		32.5	
	11-21	1.7	1.7	4.6	2.4	2.9	2.2	2.3	2.7	.0		20.5	
	22+	.0	.2	1.0	.4	.9	.3	.6	.2	.0		3.6	
	TOT %	5.2	6.1	12.2	9.0	10.3	9.3	8.3	6.4	.0	1.8	68.5	
	TOT OBS												1029
	TOT PCT	9.6	10.4	17.3	14.2	13.3	13.6	10.5	8.3	.0	2.7	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1930-1976
(OVER-ALL) 1858-1976

AREA 0026 AUCKLAND EAST
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	2.8	5.7	10.4	6.6	1.9	.0	.0	.0	27.4	72.6	106
06&09	.0	.0	1.9	5.8	12.2	5.8	.6	.0	.6	.6	27.6	72.4	156
12&15	.0	.0	4.6	5.3	9.9	5.3	2.3	.0	.0	.0	27.5	72.5	131
18&21	1.3	.0	3.8	12.2	15.4	7.1	4.5	.0	.0	.0	44.2	55.8	156
TOT	2	0	18	41	67	34	13	0	1	1	177	372	549
PCT	.4	.0	3.3	7.5	12.2	6.2	2.4	.0	.2	.2	32.2	67.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.4	1.6	1.2	2.4	26.7	67.7	251
06&09	1.1	2.2	3.2	4.7	20.4	68.5	279
12&15	.4	3.0	1.5	2.2	27.7	65.2	267
18&21	.0	.7	.4	4.5	23.1	71.3	268
TOT	5	20	17	37	260	726	1065
PCT	.5	1.9	1.6	3.5	24.4	68.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	3.0	9.0	20.0	71.0	100
06&09	.0	2.0	8.7	20.0	71.3	150
12&15	.0	5.6	12.1	16.9	71.0	124
18&21	1.3	5.3	19.1	26.3	54.6	152
TOT	2	21	66	111	349	526
PCT	.4	4.0	12.5	21.1	66.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.3	.3	.1	.3	.0	.0	10	1.1
75/79	.0	.0	.0	.0	1.3	2.1	1.6	.1	47	5.1
70/74	.0	.0	.0	.8	9.2	8.9	10.1	8.1	304	33.1
65/69	.0	.0	.3	.5	5.5	12.6	15.5	12.4	431	46.9
60/64	.0	.0	.2	.2	2.0	4.1	4.1	2.1	117	12.7
55/59	.0	.0	.0	.0	.2	.3	.3	.2	10	1.1
TOTAL	0	0	8	17	132	261	291	210	919	100.0
PCT	.0	.0	.9	1.8	14.4	28.4	31.7	22.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.0	.0	.1	.4	.2	.3	.1	.0	.0
.3	.3	.4	.5	.6	.8	1.3	.8	.0	.1
4.5	3.6	6.6	3.5	2.1	4.4	3.2	4.1	.0	1.1
4.5	3.5	9.0	7.7	6.9	7.1	4.6	2.9	.0	.7
.0	.4	1.4	1.7	4.1	2.9	1.3	.4	.0	.4
.0	.0	.1	.0	.5	.2	.2	.1	.0	.0
9.3	7.9	17.5	13.6	14.6	15.5	11.0	8.5	.0	2.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	84	82	77	70	65	62	60	70.3	332
06&09	80	78	75	69	64	61	61	69.1	311
12&15	79	72	72	67	61	59	58	66.9	350
18&21	84	75	73	68	62	57	54	67.5	316
TOT	84	78	74	68	63	60	54	68.4	1309

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	4.0	24.4	34.2	22.2	15.1	76	225
06&09	.0	3.8	15.5	28.0	34.3	18.4	78	239
12&15	.0	.4	10.2	25.3	36.7	27.3	82	245
18&21	.0	2.5	8.4	26.1	31.9	31.1	82	238
TOT	0	25	137	268	298	219	80	947

FEBRUARY

PERIOD: (PRIMARY) 1930-1978
(OVER-ALL) 1858-1978

AREA 0026 AUCKLAND EAST
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.3	.3	.0	.0	4	.0	.5
11/13	.0	.0	.0	.0	.3	.1	.1	.0	4	.0	.5
9/10	.0	.0	.0	.3	.0	.4	.4	.1	9	.0	1.2
7/8	.0	.0	.0	.1	.6	.8	.3	.0	14	.0	1.8
6	.0	.0	.0	.4	.5	.6	.1	.0	13	.0	1.7
5	.0	.0	.1	.3	.9	1.4	.0	.0	21	.0	2.7
4	.0	.0	.1	.8	1.9	1.2	.0	.0	31	.1	3.9
3	.0	.0	.0	.8	2.2	.9	.0	.0	30	.1	3.8
2	.0	.0	.4	2.2	3.2	1.6	.0	.0	57	.5	6.9
1	.0	.0	.4	4.8	5.8	.5	.0	.0	89	1.4	10.1
0	.0	.0	1.7	6.7	8.4	1.6	.0	.0	142	.9	17.5
-1	.0	.0	1.7	6.6	4.2	.3	.0	.0	98	.8	11.9
-2	.0	.1	1.9	6.4	3.9	.0	.0	.0	95	.5	11.8
-3	.0	.0	1.2	3.9	2.1	.1	.0	.0	56	.3	7.0
-4	.0	.3	.6	2.5	1.4	.0	.0	.0	37	.4	4.4
-5	.0	.3	1.8	1.6	.4	.0	.0	.0	31	.0	4.0
-6	.0	.1	.3	1.4	.1	.0	.0	.0	15	.1	1.8
-7/-8	.0	.0	1.6	.8	.4	.0	.0	.0	21	.0	2.7
-9/-10	.1	.3	.1	.0	.0	.0	.0	.0	4	.0	.5
TOTAL	1		92		283		7			40	731
		8		304		75		1	771		
PCT	.1	1.0	11.9	39.4	36.7	9.7	.9	.1	100.0	5.2	94.8

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.5
1-2	.2	3.0	.7	.0	.0	.0	3.9
3-4	.0	1.0	1.6	.0	.0	.0	2.6
5-6	.0	.0	.7	.0	.0	.0	.7
7	.0	.2	.2	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.3	3.2	.0	.0	.0	8.1

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	3.7	.8	.0	.0	.0	4.6
3-4	.0	2.1	1.7	.0	.0	.0	3.9
5-6	.0	.5	.5	.0	.0	.0	1.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.6	3.3	.1	.0	.0	10.0

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.7	.0	.0	.0	.0	2.0
1-2	.0	3.5	1.7	.0	.0	.0	5.2
3-4	.0	2.2	4.5	.2	.0	.0	6.9
5-6	.0	.5	2.4	.5	.0	.0	3.3
7	.0	.0	.7	.5	.0	.0	1.2
8-9	.0	.0	.2	.2	.0	.0	.4
10-11	.0	.0	.0	.5	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.2	.2	.0	.5
20-22	.0	.0	.0	.0	.7	.0	.7
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	7.9	9.5	2.2	.9	.0	20.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.0	.0	.0	.0	.0	1.5
1-2	.5	4.7	1.0	.0	.0	.0	6.1
3-4	.0	1.8	1.4	.0	.0	.0	3.2
5-6	.0	.2	.9	.2	.0	.0	1.4
7	.0	.0	.9	.7	.0	.0	1.7
8-9	.0	.0	.5	.1	.0	.0	.6
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.1	.2	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	7.7	4.7	1.1	.3	.2	14.9

PERIOD: (OVER-ALL) 1963-1978 FEBRUARY AREA 0026 AUCKLAND EAST 36.0S 175.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.0	.0	.0	.0	.0	1.3
1-2	.2	4.0	2.0	.0	.0	.0	6.2
3-4	.0	1.6	2.2	.4	.0	.0	4.2
5-6	.0	.0	1.0	.5	.0	.0	1.5
7	.0	.0	.4	1.0	.0	.0	1.4
8-9	.0	.0	.0	.6	.0	.0	.6
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.2	.0	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	6.6	5.6	2.7	.2	.0	15.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.3	.0	.0	.0	.0	.8
1-2	.2	2.8	1.2	.0	.0	.0	4.3
3-4	.0	.7	1.8	.1	.0	.0	2.5
5-6	.0	.3	.5	.0	.0	.0	.8
7	.0	.0	.3	.1	.0	.0	.3
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.1	3.8	.2	.0	.0	8.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6
1-2	.0	2.9	.7	.0	.0	.0	3.7
3-4	.0	.9	1.7	.2	.0	.0	2.8
5-6	.0	.2	1.1	.2	.0	.0	1.4
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.2	.0	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.6	3.7	.6	.0	.0	9.1

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.2	.2	.0	.0	.0	.7	
1-2	.1	2.3	1.8	.0	.0	.0	4.2	
3-4	.0	.5	2.6	.0	.0	.0	3.1	
5-6	.0	.0	1.2	.3	.0	.0	1.4	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.1	.0	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	3.1	5.8	.3	.0	.0	9.6	96.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.9	5.5	.2	.0	.0	.0	11.6	
1-2	1.1	26.9	9.8	.0	.0	.0	37.8	
3-4	.0	10.7	17.3	.9	.0	.0	28.9	
5-6	.0	1.6	8.2	1.6	.0	.0	11.4	
7	.0	.2	2.7	2.3	.0	.0	5.2	
8-9	.0	.0	.9	.9	.0	.0	1.8	
10-11	.0	.0	.0	.9	.2	.0	1.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.2	.0	.2	.2	.0	.7	
20-22	.0	.0	.0	.0	.7	.0	.7	
23-25	.0	.0	.0	.0	.2	.2	.5	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.1	45.1	39.2	7.1	1.4	.2	100.0	439

PERIOD: (OVER-ALL) 1950-1978 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.6	11.1	12.9	9.5	4.4	1.4	.8	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	211	4
6-7	.0	.6	6.2	5.6	6.8	2.0	2.0	.0	.8	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	124	6
8-9	.0	.6	1.8	2.4	3.4	2.4	1.4	.8	1.4	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	76	8
10-11	.0	.4	1.0	1.2	1.4	.4	.2	.2	.4	.4	.4	.2	.2	.0	.0	.0	.0	.0	.0	32	9
12-13	.0	.0	1.8	.2	.0	.6	.0	.2	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	16	7
>13	.0	.0	.0	.2	.8	.0	.2	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	8	10
INDET	2.6	.4	1.4	1.4	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	2
TOTAL	21	65	125	102	84	35	23	8	15	6	10	2	1	0	0	0	0	0	0	497	6
PCT	4.2	13.1	25.2	20.5	16.9	7.0	4.6	1.6	3.0	1.2	2.0	.4	.2	.0	.0	.0	.0	.0	.0	100.0	

MARCH

PERIOD: (PRIMARY) 1925-1978
(OVER-ALL) 1876-1978

AREA 0026 AUCKLAND EAST
36.1S 175.4E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST SNOW BLWG	NO SIG WEA
N	6.4	5.0	1.4	.0	.0	.0	.0	12.8	1.9	.0	4.3	.0	1.2	.0		79.9
NE	4.3	8.6	2.4	.0	.0	.0	.0	15.3	2.7	1.8	4.2	.0	.6	.0		76.6
E	6.9	5.5	4.6	.0	.0	.0	.0	17.0	2.6	1.6	2.6	.0	1.1	.0		75.5
SE	6.5	9.4	2.3	.0	.0	.0	.0	17.6	3.7	.2	1.5	.0	1.3	.0		75.8
S	.7	4.1	.0	.0	.0	.0	.0	4.8	1.2	.0	.7	.0	.7	.0		92.6
SW	.1	.8	.6	.0	.0	.0	.0	1.5	.0	.0	2.8	.0	1.3	.0		94.4
W	1.9	3.1	2.9	.0	.0	.0	.0	8.0	.7	1.0	3.5	.0	.9	.0		86.0
NW	5.0	2.7	4.0	.0	.0	.0	.0	11.7	.4	1.3	2.5	.0	3.1	.0		80.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	2.7	.0	2.7	.0	.0	.0		94.6
TOT PCT	3.9	4.8	2.3	.0	.0	.0	.0	11.0	1.8	.8	2.7	.0	1.2	.0		82.8
TOT OBS:	1295															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST SNOW BLWG	NO SIG WEA
00&03	2.6	6.8	1.4	.0	.0	.0	.0	10.7	1.4	.0	2.9	.0	1.2	.0		83.9
06&09	4.5	3.0	2.1	.0	.0	.0	.0	9.3	.9	1.2	2.1	.0	1.5	.0		85.6
12&15	3.4	7.2	2.8	.0	.0	.0	.0	13.5	1.6	1.9	3.8	.0	.3	.0		79.3
18&21	4.9	2.5	2.8	.0	.0	.0	.0	10.2	3.1	.0	2.5	.0	1.5	.0		82.8
TOT PCT	3.8	4.8	2.3	.0	.0	.0	.0	10.9	1.7	.8	2.8	.0	1.1	.0		82.9
TOT OBS:	1325															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	5.0	1.5	.6	*	.1		8.0	9.9	7.2	11.4	10.7	9.8	9.2	9.1	7.4	3.3
NE	2.4	5.1	4.7	1.1	.1	.0		13.4	10.7	14.7	13.8	14.2	17.0	13.0	11.0	9.5	11.6
E	1.2	7.1	7.9	2.5	.3	.2		19.2	13.8	18.0	29.4	21.8	16.2	20.4	17.2	21.9	14.9
SE	1.2	3.7	4.3	1.3	.5	.3		11.3	15.0	12.3	7.9	11.0	8.0	11.5	7.2	20.6	10.8
S	2.1	5.1	3.7	.5	.0	.0		11.3	9.3	9.8	8.2	10.3	10.6	11.6	16.1	11.7	12.9
SW	2.8	5.6	4.2	.6	*	.0		13.3	9.2	13.8	12.1	5.3	14.4	13.5	11.7	9.5	21.0
W	1.8	5.6	2.8	.8	.1	.0		11.2	9.9	14.7	7.5	7.8	11.1	9.5	14.0	9.5	12.0
NW	1.2	4.8	2.7	.3	.2	.0		9.2	9.8	7.6	7.7	15.5	9.2	9.2	9.8	7.5	8.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.1							3.1	.0	1.9	1.9	3.3	4.7	2.2	3.8	2.5	4.7
TOT OBS	263	664	503	122	22	9	1583		10.9	312	107	150	234	270	132	163	215
TOT PCT	16.6	41.9	31.8	7.7	1.4	.6		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.6	3.0	1.1	.2	.1		8.0	9.9	8.3	9.5	9.1	5.0
NE	5.0	5.0	2.9	.5	.0		13.4	10.7	14.4	15.9	12.3	10.7
E	3.8	9.3	4.6	1.4	.2		19.2	13.8	20.9	18.4	19.3	17.9
SE	2.3	5.1	2.6	.9	.4		11.3	15.0	11.2	9.2	10.1	15.0
S	4.6	5.1	1.5	.1	.0		11.3	9.3	9.4	10.5	13.1	12.4
SW	5.7	6.0	1.3	.3	.0		13.3	9.2	13.4	10.9	12.9	16.1
W	4.3	5.1	1.5	.3	.0		11.2	9.9	12.8	9.8	11.0	10.9
NW	3.8	4.0	1.1	.3	.0		9.2	9.8	7.6	11.7	9.4	8.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.1						3.1	.0	1.9	4.2	2.7	3.7
TOT OBS	574	673	263	62	11	1583		10.9	419	384	402	378
TOT PCT	36.3	42.5	16.6	3.9	.7		100.0		100.0	100.0	100.0	100.0

MARCH

PERIOD: (PRIMARY) 1925-1978
(OVER-ALL) 1876-1978

AREA 0026 AUCKLAND EAST
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.9	16.0	39.6	30.8	9.1	1.7	1.0	11.3	100.0	419
06&09	4.2	13.8	41.7	32.6	6.8	1.0	.0	10.4	100.0	384
12&15	2.7	6.0	44.5	37.3	7.7	1.0	.7	11.7	100.0	402
18&21	3.7	18.5	42.1	26.2	7.1	1.9	.5	9.9	100.0	378
TOT	49	214	664	503	122	22	9	10.9		1583
PCT	3.1	13.5	41.9	31.8	7.7	1.4	.6		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.9	2.4	2.9	2.0		4.9
NE	1.0	2.5	5.3	2.4		5.5
E	4.8	4.1	9.3	5.8		5.2
SE	2.2	2.4	5.4	5.9		5.7
S	2.9	1.8	2.4	1.9		4.4
SW	3.0	1.5	2.8	*		3.3
W	4.2	1.8	3.7	.9		3.6
NW	3.0	3.7	3.0	1.2		4.0
VAR	.0	.0	.0	.0		.0
CALM	1.1	.6	1.1	.4		4.1
TOT OBS	131	113	195	104	543	4.7
TOT PCT	24.1	20.8	35.9	19.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.1	.1	.1	.8	.7	.0	.3	.3	.0	.2	6.5	
.1	*	.3	2.0	.8	.9	.6	.4	.0	.0	5.8	
.5	.0	.3	3.7	4.8	1.7	1.0	.2	.0	.0	11.8	
.0	.0	.5	3.3	3.0	1.2	.4	.0	.0	.0	7.1	
.0	.0	.2	1.0	1.1	.7	.0	.0	.2	.0	5.5	
.0	.0	.0	*	1.7	.0	.2	.2	.0	.0	5.2	
.0	.0	.0	.2	1.2	.4	.5	.0	.0	.0	7.8	
.0	.0	.2	.4	.9	.7	.1	.1	.0	.0	8.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.4	.0	.2	.0	.0	.0	.0	2.4	
4	1	10	67	78	31	17	6	1	1	327	543
.7	.2	1.8	12.3	14.4	5.7	3.1	1.1	.2	.2	60.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.2	.4	.4	.4	.4	.4	.4	.4
* OR >9000	.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4
* OR >3500	4.0	4.7	4.7	4.7	4.7	4.7	4.7	4.7
* OR >2000	9.2	10.1	10.3	10.3	10.3	10.3	10.3	10.3
* OR >1000	20.0	22.9	24.0	24.1	24.3	24.3	24.3	24.3
* OR >600	25.4	33.5	35.9	36.2	36.6	36.6	36.6	36.6
* OR >300	25.9	34.6	37.5	38.0	38.4	38.4	38.4	38.4
* OR >150	25.9	34.6	37.5	38.2	38.6	38.6	38.6	38.6
* OR > 0	26.1	35.1	38.0	38.7	39.1	39.1	39.3	39.3
TOTAL	145	195	211	215	217	217	218	218

TOTAL NUMBER OF OBS: 555 PCT FREQ NH <5/8: 60.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
7.9	18.5	13.7	12.5	8.3	6.0	8.0	9.3	15.9	.2	599

PERIOD: (PRIMARY) 1925-1978
(OVER-ALL) 1876-1978

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	*	.0	.1	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	*	*	.0	.0	.0	.1	.1	.0	.0	.0	.2	
	TOT %	.1	.1	.0	.1	.0	.1	.1	.0	.0	.0	.4	
1/2<1	PCP	.2	.3	.2	*	.2	.1	*	.1	.0	.0	1.1	
	NO PCP	.2	.5	.2	.1	.1	*	.2	.2	.0	.0	1.5	
	TOT %	.4	.8	.4	.1	.2	.2	.2	.2	.0	.0	2.6	
1<2	PCP	.1	.2	.2	.2	.0	.0	.1	.1	.0	.0	.9	
	NO PCP	.1	*	.0	.1	.1	.1	.1	*	.0	.0	.5	
	TOT %	.2	.2	.2	.3	.1	.1	.2	.1	.0	.0	1.4	
2<5	PCP	*	.1	.5	.7	.0	.0	.1	*	.0	.0	1.4	
	NO PCP	*	.4	.3	*	.3	.2	.2	.0	.0	.1	1.5	
	TOT %	.1	.5	.8	.7	.3	.2	.2	*	.0	.1	2.9	
5<10	PCP	.7	1.2	1.8	.9	.3	.1	.4	.8	.0	.0	6.1	
	NO PCP	2.4	3.4	3.2	2.6	3.9	4.5	2.8	2.3	.0	1.0	26.1	
	TOT %	3.1	4.6	5.0	3.5	4.2	4.6	3.2	3.1	.0	1.0	32.3	
10+	PCP	.0	.2	.5	.2	.1	*	.3	.1	.0	.0	1.3	
	NO PCP	4.4	6.8	11.6	6.8	6.5	8.7	7.0	5.7	.0	1.8	59.1	
	TOT %	4.4	6.9	12.0	6.9	6.6	8.7	7.3	5.8	.0	1.8	60.5	
	TOT OBS												1285
	TOT PCT	8.2	13.1	18.4	11.6	11.4	13.8	11.2	9.3	.0	2.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	4-10	*	*	.0	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0		.1	
	22+	.1	*	.0	.1	.0	.0	.0	.0	.0		.2	
	TOT %	.1	.1	.0	.1	.0	.1	.1	.0	.0	.0	.4	
1/2<1	0-3	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.3	.3	.1	.1	.0	.2	.2	.1	.0		1.3	
	11-21	*	.3	.3	.0	.2	.0	*	.1	.0		1.0	
	22+	.0	.0	*	*	.1	.0	.0	.0	.0		.2	
	TOT %	.4	.8	.5	.1	.2	.2	.2	.2	.0	.0	2.6	
1<2	0-3	*	.0	.0	.1	.1	.0	.1	*	.0	.0	.4	
	4-10	*	.2	*	.0	.0	.0	.1	.0	.0		.3	
	11-21	.1	.1	.2	.2	.0	.2	*	*	.0		.8	
	22+	.1	*	.1	.2	.0	*	*	.1	.0		.5	
	TOT %	.3	.3	.3	.5	.1	.2	.2	.2	.0	.0	2.0	
2<5	0-3	.0	.0	.1	.0	.1	*	.2	*	.0	.1	.5	
	4-10	*	*	.3	.1	.1	.2	.0	.0	.0		.8	
	11-21	.0	.2	.1	.2	.1	*	.1	.0	.0		.6	
	22+	*	.3	.3	.4	.0	.0	.0	.0	.0		1.1	
	TOT %	.1	.5	.8	.7	.3	.2	.3	*	.0	.1	2.9	
5<10	0-3	.4	.6	.2	.2	.9	.6	.3	.4	.0	1.1	4.6	
	4-10	1.9	1.4	1.6	1.1	1.9	2.8	1.9	1.8	.0		16.4	
	11-21	.5	2.6	2.3	1.8	1.2	.8	.6	.7	.0		10.5	
	22+	.2	.4	.8	.3	.2	.2	.4	.2	.0		2.7	
	TOT %	3.1	5.1	4.9	3.4	4.1	4.5	3.1	3.1	.0	1.1	32.2	
10+	0-3	.3	2.1	1.0	1.0	1.4	2.7	1.5	.9	.0	1.8	12.7	
	4-10	3.0	3.2	4.7	2.4	2.8	2.7	3.2	3.0	.0		24.9	
	11-21	.8	1.8	5.1	2.3	2.0	2.7	2.0	1.6	.0		18.4	
	22+	.2	.2	1.1	1.0	.2	.4	.4	.3	.0		3.9	
	TOT %	4.3	7.2	11.9	6.7	6.4	8.6	7.2	5.8	.0	1.8	60.0	
	TOT OBS												1919
	TOT PCT	8.2	13.9	18.3	11.5	11.2	13.6	11.2	9.2	.0	3.0	100.0	

MARCH

PERIOD: (PRIMARY) 1925-1978
(OVER-ALL) 1876-1978

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.7	.0	.0	16.0	13.2	6.9	3.5	.0	.0	.0	40.3	59.7	144
06&09	.6	.0	1.9	10.5	9.3	5.6	1.9	1.2	.6	.0	31.5	68.5	162
12&15	.8	.8	.8	5.6	15.3	1.6	4.0	1.6	.0	.8	31.5	68.5	124
18&21	.7	.0	3.9	13.8	17.1	6.6	3.3	1.3	.0	.0	46.7	53.3	152
TOT	4	1	10	68	79	31	18	6	1	1	219	363	582
PCT	.7	.2	1.7	11.7	13.6	5.3	3.1	1.0	.2	.2	37.6	62.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	3.1	1.1	2.2	33.7	59.6	359
06&09	.3	2.0	2.3	4.4	30.0	60.9	343
12&15	.9	3.0	2.1	1.8	41.5	50.6	328
18&21	.0	1.8	2.1	2.7	25.8	67.5	329
TOT	5	34	26	38	445	811	1359
PCT	.4	2.5	1.9	2.8	32.7	59.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.7	.7	19.0	23.4	57.7	137
06&09	.6	3.9	15.6	17.5	66.9	154
12&15	.9	2.6	9.6	23.7	66.7	114
18&21	.7	4.7	20.0	27.3	52.7	150
TOT	4	17	91	127	337	555
PCT	.7	3.1	16.4	22.9	60.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.1	.2	.0	.0	.0	.0	.0	3	.3
80/84	.1	.0	.4	.1	.3	.2	.0	.0	11	1.1
75/79	.0	.0	.2	.7	.5	.6	.2	.0	22	2.1
70/74	.0	.0	.0	.8	3.7	6.2	7.3	7.5	262	25.4
65/69	.0	.0	.4	.7	3.6	14.3	18.7	14.2	536	51.9
60/64	.0	.0	.0	.3	3.7	3.3	5.6	4.2	176	17.1
55/59	.0	.0	.0	.0	.0	.4	.8	.7	19	1.8
50/54	.0	.0	.0	.0	.0	.1	.0	.1	2	.2
45/49	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
TOTAL	1	1	12	24	121	259	337	275	1032	100.0
PCT	.1	.1	1.2	2.3	11.7	25.1	32.7	26.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.0	.0	.0	.1	.0	.1	.0	.0
.0	.4	.2	.1	.0	.2	.1	.0	.0	.1
.1	.4	.2	.4	.0	.4	.5	.1	.0	.1
2.6	4.6	6.0	2.3	1.5	2.0	2.3	3.4	.0	.7
3.6	6.0	10.3	7.2	5.1	6.3	6.8	5.1	.0	1.6
.3	.4	2.0	2.6	4.2	4.2	1.6	1.6	.0	.2
.1	*	.0	.2	.7	.4	.1	.2	.0	.2
.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
6.6	11.9	18.7	12.8	11.6	13.7	11.4	10.4	.0	2.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	88	82	77	69	63	61	59	69.6	408
06&09	76	74	73	68	63	60	54	67.9	377
12&15	73	72	71	67	61	57	49	66.2	397
18&21	86	74	72	66	59	55	50	66.2	378
TOT	88	79	73	68	61	57	49	67.5	1560

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.0	19.6	27.4	28.1	17.8	77	270
06&09	.0	5.3	11.7	27.7	29.8	25.5	80	282
12&15	.0	1.2	7.6	18.9	39.9	32.9	84	243
18&21	.4	1.1	7.3	26.0	35.2	30.0	83	273
TOT	1	40	123	269	353	282	81	1068

PERIOD: (PRIMARY) 1925-1978
(OVER-ALL) 1876-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
14/16	.0	.0	.0	.0	.5	.0	.0	.0	.0	5	.0	.5
11/13	.0	.0	.0	.3	.0	.0	.1	.0	.0	4	.0	.4
9/10	.0	.0	.1	.0	.1	.1	.0	.0	.0	3	.0	.3
7/8	.0	.0	.1	.1	.1	.4	.1	.0	.0	8	.0	.9
6	.0	.0	.0	.0	.1	.2	.2	.0	.0	5	.0	.5
5	.0	.0	.0	.2	1.2	.4	.0	.0	.0	17	.0	1.9
4	.0	.0	.1	.5	1.6	.5	.0	.0	.0	26	.1	2.7
3	.0	.0	.1	1.2	2.7	.2	.0	.0	.0	39	.4	3.8
2	.0	.0	.3	3.7	5.5	.7	.0	.0	.0	93	.2	10.0
1	.0	.0	.8	6.0	4.7	.7	.0	.0	.0	111	1.1	11.1
0	.0	.0	2.0	7.5	8.1	.3	.0	.0	.0	164	.5	17.4
-1	.0	.1	1.5	7.7	2.2	.0	.0	.0	.0	105	.8	10.7
-2	.0	.3	3.3	7.7	2.4	.1	.0	.0	.0	126	.5	13.2
-3	.0	.2	1.8	3.3	.9	.0	.0	.0	.0	56	.0	6.1
-4	.0	.8	2.5	2.4	.7	.0	.0	.0	.0	58	.2	6.1
-5	.1	.3	1.6	1.6	.8	.0	.0	.0	.0	41	.0	4.5
-6	.0	.2	1.1	1.0	.0	.0	.0	.0	.0	21	.0	2.3
-7/-8	.1	.4	.5	.4	.0	.0	.0	.0	.0	14	.0	1.5
-9/-10	.1	.4	.9	.0	.0	.0	.0	.0	.0	13	.0	1.4
-11/-13	.0	.1	.2	.0	.0	.0	.0	.0	.0	3	.0	.3
-17/-19	.1	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	4	27	155	400	289	34	4	0	1	914	36	878
PCT	.4	3.0	17.0	43.8	31.6	3.7	.4	.0	.1	100.0	3.9	96.1

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.4	2.7	.2	.0	.0	.0	3.3
3-4	.0	1.6	.9	.4	.0	.0	2.9
5-6	.0	.0	.8	.2	.2	.0	1.3
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	5.2	1.9	1.0	.2	.0	8.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.2	4.1	1.1	.0	.0	.0	5.3
3-4	.0	1.2	.7	.6	.0	.0	2.5
5-6	.0	.0	1.8	.0	.2	.0	2.1
7	.0	.0	.4	.8	.0	.0	1.2
8-9	.0	.2	.0	.2	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	5.8	4.1	1.6	.2	.0	11.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.5
1-2	.8	4.4	2.1	.0	.0	.0	7.4
3-4	.2	3.0	5.2	.4	.0	.0	8.8
5-6	.0	.0	3.9	.5	.0	.0	4.4
7	.0	.5	1.2	.8	.0	.0	2.5
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.0	.5	.2	.0	.7
12	.0	.2	.0	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	8.4	12.4	2.5	.5	.0	25.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2
1-2	.0	3.2	.9	.0	.0	.0	4.1
3-4	.2	1.7	3.5	1.0	.0	.0	6.5
5-6	.0	.0	2.5	.5	.2	.0	3.2
7	.0	.0	.5	.8	.0	.0	1.4
8-9	.0	.2	.0	.4	.0	.0	.6
10-11	.0	.0	.2	.5	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.2	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.1	7.9	3.2	.2	.0	17.0

PERIOD: (OVER-ALL) 1963-197R

MARCH

TABLE 18 (CONT)

AREA 0026 AUCKLAND EAST 36.1S 175.4E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.5	1.5	.0	.0	.0	.0	2.0
3-4	.0	.8	1.8	.0	.0	.0	2.7
5-6	.0	.0	1.4	.0	.0	.0	1.4
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.0	.7	.0	.0	.7
10-11	.0	.0	.4	.2	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.8	4.1	1.0	.0	.0	8.3

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	1.2	.2	.0	.0	.0	1.4
3-4	.0	1.2	1.6	.0	.0	.0	2.8
5-6	.0	.0	.8	.1	.0	.0	.8
7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.1	.2	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.0	3.0	.3	.0	.0	6.2

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6
1-2	.0	2.7	.7	.0	.0	.0	3.4
3-4	.0	.8	1.6	.0	.0	.0	2.4
5-6	.0	.2	1.8	.2	.0	.0	2.2
7	.0	.0	.4	.4	.0	.0	.8
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.1	4.5	1.3	.0	.0	10.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.5	.8	.0	.0	.0	.0	1.3	
1-2	.0	3.0	.6	.0	.0	.0	3.6	
3-4	.0	1.6	2.1	.1	.0	.0	3.7	
5-6	.0	.0	.4	.2	.3	.0	.9	
7	.0	.0	.3	.1	.0	.0	.4	
8-9	.0	.0	.0	.1	.0	.0	.1	
10-11	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.2	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	5.4	3.3	.5	.5	.0	10.2	97.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.8	3.6	.0	.0	.0	.0	7.5	
1-2	2.2	22.6	5.8	.0	.0	.0	30.5	
3-4	.7	11.8	17.3	2.4	.0	.0	32.2	
5-6	.0	.2	13.2	1.7	1.0	.0	16.1	
7	.0	.5	3.4	2.9	.0	.0	6.7	
8-9	.0	.5	.2	2.4	.0	.0	3.1	
10-11	.0	.0	.7	1.9	.2	.0	2.9	
12	.0	.2	.0	.0	.0	.0	.2	
13-16	.0	.0	.2	.0	.5	.0	.7	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.7	39.4	40.9	11.3	1.7	.0	100.0	416

PERIOD: (OVER-ALL) 1949-197R

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	11.2	16.0	7.9	4.1	2.5	.4	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	211	4
6-7	.0	1.0	4.6	7.3	5.2	2.5	3.1	.8	1.7	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	127	7
8-9	.0	.4	1.2	2.3	2.5	2.5	1.2	.4	2.3	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	66	8
10-11	.0	2.3	.4	1.9	1.2	.2	.0	.2	1.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	36	7
12-13	.0	.0	1.5	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	4
>13	.0	.0	.0	.0	.4	.6	.0	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	7	13
INDET	1.2	.8	.0	.6	.8	.2	.6	.0	.2	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	24	6
TOTAL	11	76	114	98	70	42	26	8	27	4	2	1	1	1	0	1	0	0	0	482	6
PCT	2.3	15.8	23.7	20.3	14.5	8.7	5.4	1.7	5.6	.8	.4	.2	.2	.2	.0	.2	.0	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1885-1977

AREA 0026 AUCKLAND EAST
36.1S 175.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	12.4	4.4	3.8	.0	.0	.0	.0	19.7	3.8	.0	5.0	.0	.8	.8	.0	69.8
NE	14.5	6.3	4.6	.0	.0	.0	.0	25.3	4.9	.8	.0	.0	.8	.0	.0	68.9
E	8.9	2.7	4.4	.0	.0	.0	.0	15.2	4.4	.0	.7	.0	.0	.0	.0	79.7
SE	8.8	.7	1.7	.0	.0	.0	.0	11.2	1.9	.0	1.0	.0	1.0	.0	.0	85.0
S	2.6	.4	.7	.0	.0	.0	.0	3.7	1.8	1.5	.7	.0	.7	.0	.0	91.9
SW	1.9	1.7	.5	.0	.0	.0	.0	4.2	2.2	.5	.5	.0	2.2	.0	.0	90.4
W	2.1	3.2	.9	.0	.0	.0	.0	6.2	1.8	.0	.0	.0	.5	.0	.0	91.8
NW	3.2	3.8	1.8	.0	.0	.0	.0	8.8	4.1	2.3	1.2	.0	2.3	.0	.0	81.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	2.3	.0	.0	.0	.0	2.3	.0	.0	2.3	.0	4.5	.0	.0	90.9
TOT PCT	6.1	2.7	2.2	.0	.0	.0	.0	10.8	2.7	.5	1.1	.0	1.2	.1	.0	83.6
TOT OBS:	1111															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	7.1	3.6	2.6	.0	.0	.0	.0	13.0	2.3	.0	1.9	.0	1.0	.3	.0	81.5
06609	6.2	1.1	1.4	.0	.0	.0	.0	8.3	1.4	.7	1.4	.0	2.5	.0	.0	85.5
12615	4.9	3.4	1.9	.0	.0	.0	.0	10.2	3.4	.4	1.5	.0	.4	.0	.0	84.2
18621	5.7	2.3	2.3	.0	.0	.0	.0	10.4	4.0	1.0	.7	.0	2.3	.0	.0	81.5
TOT PCT	6.0	2.6	2.1	.0	.0	.0	.0	10.5	2.8	.5	1.4	.0	1.6	.1	.0	83.1
TOT OBS:	1148															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.5	4.9	3.7	1.1	.1	.0		11.3	10.9	10.8	10.4	11.1	10.4	13.0	13.2	7.9	12.9
NE	1.2	5.3	3.6	.8	.1	.1		11.1	11.3	9.4	11.0	10.5	13.0	11.7	17.5	4.9	12.6
E	1.0	5.7	5.4	1.6	.1	.0		13.9	12.7	12.9	14.0	8.9	14.8	15.5	16.8	13.3	14.7
SE	1.6	3.5	3.3	.8	.1	.0		9.3	11.0	10.9	10.4	9.7	10.4	6.4	5.2	12.5	8.2
S	1.2	5.8	4.8	.9	.1	.0		12.9	11.4	12.8	18.2	13.3	10.4	13.2	11.4	13.5	13.1
SW	2.1	6.8	5.6	1.5	.0	.0		16.0	11.2	17.6	11.0	17.7	16.5	11.7	13.0	22.5	15.4
W	1.1	6.0	5.6	1.1	.3	.1		14.1	12.3	15.4	13.6	16.9	13.6	15.3	11.4	12.3	12.4
NW	.5	4.0	2.1	.5	.2	.0		7.4	11.2	5.8	7.5	10.3	7.0	8.7	8.9	10.4	3.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.1							4.1	.0	4.3	3.9	1.6	4.0	4.3	2.7	2.6	7.3
TOT OBS	194	567	460	112	14	2	1349		11.1	277	77	126	200	230	110	152	177
TOT PCT	14.4	42.0	34.1	8.3	1.0	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.6	4.0	2.4	.2	.1		11.3	10.9	10.7	10.7	13.1	10.6
NE	3.4	5.4	1.7	.5	.1		11.1	11.3	9.7	12.0	13.6	9.0
E	3.3	6.4	3.5	.7	*		13.9	12.7	13.1	12.5	16.0	14.1
SE	3.2	4.1	1.6	.4	.0		9.3	11.0	10.8	10.1	6.0	10.2
S	4.0	6.0	2.3	.4	.1		12.9	11.4	14.0	11.5	12.6	13.3
SW	5.1	7.0	3.2	.6	.0		16.0	11.2	16.2	16.9	12.1	18.7
W	3.8	6.9	2.6	.7	.1		14.1	12.3	15.0	14.9	14.0	12.4
NW	2.3	3.9	.8	.5	.0		7.4	11.2	6.1	8.3	8.8	6.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.1						4.1	.0	4.2	3.1	3.8	5.2
TOT OBS	456	590	244	54	5	1349		11.1	354	326	340	329
TOT PCT	33.8	43.7	18.1	4.0	.4		100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1885-1977

AREA 0026 AUCKLAND EAST
36.1S 175.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.2	11.0	39.0	35.0	9.6	.8	.3	11.4	100.0	354
06&09	3.1	12.9	44.8	31.6	6.7	.6	.3	10.4	100.0	326
12&15	3.8	4.4	42.9	38.5	8.5	1.8	.0	12.1	100.0	340
18&21	5.2	13.1	41.6	31.0	8.2	.9	.0	10.4	100.0	329
TOT	55	139	567	460	112	14	2	11.1		1349
PCT	4.1	10.3	42.0	34.1	8.3	1.0	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.4	1.6	4.2	2.7		5.5
NE	1.0	1.6	2.2	2.1		5.4
E	2.0	3.1	4.1	3.0		5.1
SE	3.2	2.7	2.9	2.1		4.5
S	4.8	4.4	1.6	1.5		3.4
SW	7.3	5.1	4.6	1.7		3.5
W	7.2	5.3	2.9	1.8		3.3
NW	2.7	1.2	3.1	2.1		4.8
VAR	.0	.0	.0	.0		.0
CALM	1.8	.2	.8	.2		3.2
TOT OBS	160	129	135	88	512	4.2
TOT PCT	31.3	25.2	26.4	17.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.2	2.0	1.7	1.0	.0	.0	.0	.0	4.9	
NE	.0	.0	.2	1.5	1.0	.5	.1	.0	.0	.0	3.7	
E	.2	.0	.0	2.8	1.1	1.1	.6	.0	.0	.0	6.3	
SE	.0	.0	.2	.9	1.6	.6	.6	.2	.0	.0	6.9	
S	.0	.0	.0	.6	.6	.5	.3	.0	.0	.1	10.2	
SW	.0	.0	.0	.9	1.8	.8	.3	.0	.2	.2	14.5	
W	.0	.0	.3	1.0	1.1	.6	.3	.0	.0	.0	13.8	
NW	.0	.0	.4	1.0	1.6	.6	.0	.0	.0	.0	5.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.4	.0	.0	.0	.2	.0	2.3	
TOT OBS	1	0	7	54	55	29	12	1	2	2	349	512
TOT PCT	.2	.0	1.4	10.5	10.7	5.7	2.3	.2	.4	.4	68.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.8	.8	.8	.8	.8	.8	.8	.8
= OR >5000	.9	.9	.9	.9	.9	.9	.9	.9
= OR >3500	3.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2
= OR >2000	8.3	9.1	9.1	9.2	9.2	9.2	9.2	9.2
= OR >1000	16.4	19.1	19.8	20.0	20.0	20.0	20.0	20.0
= OR >600	20.8	27.9	30.0	30.4	30.4	30.4	30.4	30.4
= OR >300	21.1	28.5	31.1	31.5	31.7	31.7	31.7	31.7
= OR >150	21.1	28.5	31.1	31.5	31.7	31.7	31.7	31.7
= OR > 0	21.3	28.7	31.3	31.9	32.1	32.1	32.1	32.1
TOTAL	113	152	166	169	170	170	170	170

TOTAL NUMBER OF OBS: 530

PCT FREQ NH <5/8: 67.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.5	19.7	15.3	11.6	12.8	6.2	7.6	4.9	14.1 .2	568

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1885-1977

AREA 0026 AUCKLAND EAST
36.1S 175.9E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	*	.1	.0	.0	.0	.0	.1	.1	.0	.0	.4	
	NO PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.2	.1	.0	.0	.0	.0	.1	.1	.0	.0	.5	
1<2	PCP	.1	.3	.4	.0	.0	.0	.1	*	.0	.0	1.0	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	TOT %	.2	.3	.4	.0	.0	.0	.1	.1	.0	.0	1.2	
2<5	PCP	.2	.6	.2	.2	.1	*	.1	.1	.0	.0	1.6	
	NO PCP	.3	.3	.6	.5	.2	.7	.4	.5	.0	.1	3.5	
	TOT %	.6	.9	.8	.7	.3	.7	.5	.9	.0	.1	5.1	
5<10	PCP	.9	1.5	.7	.4	.2	.6	.4	.3	.0	.0	5.0	
	NO PCP	1.3	2.4	1.6	1.1	2.5	2.9	2.0	2.0	.0	.6	16.5	
	TOT %	2.2	4.0	2.3	1.5	2.7	3.5	2.4	2.3	.0	.6	21.4	
10+	PCP	.9	.3	.5	.4	.1	.1	.2	.2	.0	.1	2.9	
	NO PCP	6.7	5.7	8.4	6.9	9.1	13.0	11.5	4.5	.0	3.2	68.9	
	TOT %	7.5	6.1	8.9	7.3	9.2	13.1	11.7	4.7	.0	3.2	71.7	
	TOT OBS												1111
	TOT PCT	10.7	11.4	12.4	9.5	12.3	17.3	14.8	7.7	.0	4.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.1	.1	.0	.0	.1	.0	.0	.0	.0		.3	
	11-21	*	*	.0	.0	.0	.0	.1	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	TOT %	.2	.1	.0	.0	.1	.0	.1	.1	.0	.0	.6	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.1	.1	.1	.0	.1	.1	.0		.7	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.1	.2	.3	.0	.0	.0	.0	.0	.0		.6	
	TOT %	.2	.3	.4	.1	.1	.0	.1	.1	.0	.0	1.3	
2<5	0-3	.0	.1	.1	.3	.1	.3	.0	.0	.0	.1	.9	
	4-10	.2	.4	.3	.1	.1	.3	.3	.3	.0		2.0	
	11-21	.1	.1	.2	.2	.1	.2	.2	.1	.0		1.2	
	22+	.3	.2	.3	.1	.0	.0	.0	.2	.0		1.1	
	TOT %	.6	.9	.9	.6	.3	.7	.6	.5	.0	.1	5.2	
5<10	0-3	.1	.2	.1	.4	.3	.5	.5	.2	.0	.6	3.0	
	4-10	1.0	1.9	.5	.3	.8	1.0	.9	1.1	.0		7.6	
	11-21	.5	1.5	1.1	.6	1.2	1.4	.8	.6	.0		7.8	
	22+	.5	.5	.6	.2	.3	.5	.1	.3	.0		2.9	
	TOT %	2.1	4.1	2.3	1.5	2.7	3.4	2.3	2.2	.0	.6	21.3	
10+	0-3	1.4	1.1	1.0	1.2	1.0	1.7	.7	.3	.0	3.4	11.9	
	4-10	3.4	2.9	4.4	3.2	4.1	5.7	4.7	2.4	.0		30.7	
	11-21	2.5	1.8	3.4	2.6	3.0	4.3	4.7	1.6	.0		24.0	
	22+	.2	.1	.5	.6	.9	1.1	1.3	.3	.0		4.9	
	TOT %	7.5	6.0	9.2	7.5	9.0	12.9	11.5	4.6	.0	3.4	71.6	
	TOT OBS												1133
	TOT PCT	10.6	11.4	12.8	9.7	12.2	17.0	14.6	7.5	.0	4.1	100.0	

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1885-1977

AREA 0026 AUCKLAND EAST
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.7	.0	2.2	10.1	10.8	9.4	2.9	.7	.0	.7	37.4	62.6	139
06&09	.8	.0	.0	11.7	7.8	3.9	2.3	.0	.8	.8	28.1	71.9	128
12&15	.0	.0	1.5	5.3	8.3	4.5	1.5	.0	.8	.0	22.0	78.0	132
18&21	.0	.0	1.3	12.5	13.8	5.3	2.0	.0	.0	.0	34.9	65.1	152
TOT	2	0	7	55	57	32	12	1	2	2	170	381	551
PCT	.4	.0	1.3	10.0	10.3	5.8	2.2	.2	.4	.4	30.9	69.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	1.0	1.9	1.6	22.6	72.9	310
06&09	.0	.7	1.8	12.8	23.8	61.0	282
12&15	.0	.4	1.1	2.5	22.9	73.5	275
18&21	.0	.3	.7	3.6	16.9	78.9	303
TOT	0	7	16	59	249	839	1170
PCT	.0	.6	1.4	5.0	21.3	71.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.7	2.9	14.7	23.5	61.8	136
06&09	.8	.8	13.9	16.4	69.7	122
12&15	.0	1.6	7.3	16.3	76.4	123
18&21	.0	1.3	16.8	19.5	63.8	149
TOT	2	9	71	101	358	530
PCT	.4	1.7	13.4	19.1	67.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
70/74	.0	.0	.0	.3	.4	1.5	2.5	1.8	66	6.5
65/69	.0	.1	.2	.8	4.4	9.7	13.1	16.3	457	44.7
60/64	.0	.1	.1	1.4	6.7	12.2	11.3	7.9	407	39.8
55/59	.0	.0	.0	.1	.9	3.3	1.7	2.5	87	8.5
50/54	.0	.0	.0	.0	.0	.1	.1	.3	5	.5
TOTAL	0	2	3	27	127	274	294	296	1023	100.0
PCT	.0	.2	.3	2.6	12.4	26.8	28.7	28.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
1.1	1.0	1.0	.2	.3	1.2	.7	.8	.0	.3
7.8	6.6	6.1	4.5	3.6	4.5	6.2	3.8	.0	1.6
1.8	2.0	3.8	4.1	6.5	10.1	7.1	2.7	.0	1.5
*	.3	.7	.7	2.0	2.4	1.5	.1	.0	.7
.1	.0	.0	.1	.0	.1	.1	.0	.0	.1
10.9	9.9	11.6	9.7	12.5	18.4	15.7	7.4	.0	4.1

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	75	73	72	66	60	57	54	65.9	361
06&09	74	71	70	65	59	54	53	64.4	321
12&15	72	71	70	65	59	57	56	64.4	335
18&21	72	71	69	63	57	54	52	63.2	336
TOT	75	72	70	65	58	55	52	64.5	1393

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.0	15.7	26.8	25.4	25.1	78	287
06&09	.0	2.0	16.9	22.7	29.8	28.6	81	255
12&15	.0	2.9	8.4	29.7	36.0	23.0	81	239
18&21	.0	1.1	9.7	26.5	25.1	37.6	83	279
TOT	0	35	135	280	305	305	81	1060

APRIL

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1885-1977

AREA 0026 AUCKLAND EAST
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA THR DIF	53 56	57 60	61 64	65 68	69 72	73 76	TOT	# FOG	PCT FOG
9/10	.0	.0	.0	.0	.1	.0	1	.0	.1
7/8	.0	.0	.0	.1	.1	.1	3	.0	.4
6	.0	.0	.0	.3	.1	.0	3	.0	.4
5	.0	.0	.0	.7	1.1	.1	14	.1	1.8
4	.0	.0	.1	1.0	.8	.3	16	.0	2.2
3	.0	.0	.0	1.1	.4	.4	14	.0	1.9
2	.0	.1	1.2	3.4	1.4	.0	45	.4	5.8
1	.0	.0	.4	4.9	2.6	.0	58	.3	7.7
0	.0	.4	5.1	9.2	2.9	.1	129	.5	17.1
-1	.0	.0	3.6	6.7	.8	.0	81	.1	11.0
-2	.1	1.1	5.2	5.2	.5	.0	89	.3	11.9
-3	.0	.5	4.8	3.3	.3	.0	65	.0	8.9
-4	.1	1.0	5.3	1.8	.1	.0	61	.0	8.4
-5	.4	1.1	5.2	1.5	.1	.0	61	.0	8.4
-6	.0	1.5	2.3	.4	.0	.0	31	.0	4.2
-7/-8	.1	1.9	1.4	1.1	.0	.0	33	.0	4.5
-9/-10	.0	1.5	1.4	.1	.0	.0	22	.0	3.0
-11/-13	.1	.3	.1	.0	.0	.0	4	.0	.5
TOTAL	7	69	264	298	94	8	730	13	717
PCT	1.0	9.5	36.2	40.8	11.5	1.1	100.0	1.8	98.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5
1-2	.2	3.1	.2	.0	.0	.0	3.5
3-4	.0	.6	1.9	.0	.0	.0	2.5
5-6	.0	.0	1.1	.2	.0	.0	1.4
7	.0	.0	.4	.2	.0	.0	.5
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.2	.2	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.3	3.6	1.1	.2	.0	9.5

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.9
1-2	.1	1.7	.4	.0	.0	.0	2.2
3-4	.0	.1	1.5	.0	.0	.0	1.5
5-6	.0	.0	.5	.0	.0	.0	.5
7	.0	.0	.6	.3	.0	.0	.9
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.2	.4
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.4	3.0	.8	.2	.2	6.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.2	.0	.0	.0	.0	.6
1-2	.2	4.2	.8	.0	.0	.0	5.2
3-4	.0	1.0	1.6	.2	.0	.0	2.8
5-6	.0	.0	1.0	.4	.2	.0	1.7
7	.0	.0	1.5	.2	.0	.0	1.7
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.4	5.4	.9	.2	.0	12.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.3	.0	.0	.0	.0	1.0
1-2	.4	2.2	.9	.0	.0	.0	3.5
3-4	.0	1.1	2.3	.4	.0	.0	3.8
5-6	.0	.0	.9	.4	.0	.0	1.4
7	.0	.0	1.0	.0	.0	.0	1.0
8-9	.0	.0	.0	.0	.2	.0	.2
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	3.6	5.1	1.3	.2	.0	11.4

PERIOD: (OVER-ALL) 1963-1977 APRIL AREA 0026 AUCKLAND EAST 36.1S 175.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.6	.0	.0	.0	.0	2.1
1-2	.0	2.0	.2	.0	.0	.0	2.2
3-4	.0	.6	1.0	.0	.0	.0	1.7
5-6	.0	.0	1.7	.4	.0	.0	2.1
7	.0	.0	.9	1.1	.0	.0	1.8
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.3	3.7	1.9	.2	.0	10.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.2	.0	.0	.0	.0	1.8
1-2	.7	4.6	1.2	.0	.0	.0	6.5
3-4	.2	1.5	2.5	.2	.0	.0	4.4
5-6	.0	.0	3.0	.5	.0	.0	3.5
7	.0	.2	.3	.5	.0	.0	1.0
8-9	.0	.0	.2	.2	.0	.0	.4
10-11	.0	.0	.0	.5	.0	.0	.5
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.2	.0	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.6	7.7	7.3	1.9	.0	.0	18.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.3	.0	.0	.0	.0	.5	
1-2	.2	2.7	.8	.0	.0	.0	3.7	
3-4	.0	.7	1.6	.0	.0	.0	2.3	
5-6	.0	.0	1.5	.1	.0	.0	1.6	
7	.0	.0	.3	.5	.0	.0	.8	
8-9	.0	.0	.1	.2	.2	.0	.4	
10-11	.0	.0	.0	.0	.2	.0	.2	
12	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	3.7	4.3	.9	.4	.0	9.7	97.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.6	5.6	.0	.0	.0	.0	11.2	
1-2	2.4	23.4	6.9	.0	.0	.0	32.6	
3-4	.2	6.7	16.7	.9	.0	.0	24.5	
5-6	.0	.0	11.8	2.4	.4	.0	14.6	
7	.0	.2	6.2	3.2	.2	.0	9.9	
8-9	.0	.0	.6	1.5	.4	.0	2.6	
10-11	.0	.0	.2	1.5	.6	.0	2.4	
12	.0	.0	.0	.6	.0	.0	.6	
13-16	.0	.0	.0	.2	.2	.4	.9	
17-19	.0	.2	.0	.2	.4	.0	.9	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.2	36.1	42.5	10.5	2.4	.4	100.0	486

PERIOD: (OVER-ALL) 1950-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.4	9.7	11.5	5.1	5.3	3.2	.6	.2	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	186	4
6-7	.0	2.2	4.7	7.7	7.7	2.6	2.0	.2	1.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	142	6
8-9	.0	1.0	2.2	3.2	3.0	.8	2.4	1.0	1.6	.6	.4	.0	.0	.4	.0	.0	.0	.0	.0	83	8
10-11	.0	.8	.2	1.6	.4	.8	.6	.2	.6	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	27	8
12-13	.0	.0	.8	.0	.8	.2	.0	.0	.2	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	12	8
>13	.0	.0	.0	.2	.6	.0	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	7	11
INDET	3.4	.2	.2	.6	2.0	.4	.2	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	4
TOTAL	24	69	97	91	98	40	31	8	21	6	5	1	1	2	0	0	0	0	0	494	6
PCT	4.9	14.0	19.6	18.4	19.8	8.1	6.3	1.6	4.3	1.2	1.0	.2	.2	.4	.0	.0	.0	.0	.0	100.0	

MAY

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1876-1977

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	9.8	6.8	8.2	.0	.0	.0	.0	24.7	6.5	1.9	.0	.0	1.1	.0		66.8
NE	6.8	11.4	6.3	.0	.0	.0	.0	24.5	2.2	1.1	.5	.0	.0	.0		71.7
E	3.6	9.7	3.4	.0	.0	.0	.0	16.8	1.0	.0	5.4	.0	1.0	.0		75.9
SE	5.9	3.9	.6	.0	.0	.0	.0	10.4	1.0	.0	2.7	.0	.0	.0		85.9
S	1.6	1.3	.0	.0	.0	.0	.0	2.9	1.3	.0	1.4	.0	.7	1.4		92.2
SW	2.1	1.8	1.2	.0	.0	.0	.0	5.0	.2	.1	1.6	.0	1.6	.0		91.6
W	4.6	2.7	.6	.0	.0	.0	.0	8.0	2.6	1.6	.9	.0	.6	.6		86.3
NW	2.4	5.9	2.8	.0	.0	.0	.8	11.1	1.4	2.6	2.4	.0	2.4	.0		79.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	2.2	.0	.0	.0	.0	.0	.0	2.2	.0	.0	2.2	.0	.0	.0		95.7
TOT PCT	4.0	4.4	2.2	.0	.0	.0	.1	10.5	1.7	.8	1.8	.0	1.0	.3		84.2
TOT OBS:	1149															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.4	4.9	2.2	.0	.0	.0	.0	10.5	.9	.0	1.5	.0	1.8	.3		84.9
06&09	3.7	4.1	2.7	.0	.0	.0	.0	10.5	3.1	.7	2.0	.0	.3	.7		82.7
12&15	4.5	5.6	1.4	.0	.0	.0	.0	11.5	1.0	2.1	1.7	.0	.7	.0		83.6
18&21	4.8	2.2	2.2	.0	.0	.0	.4	9.3	2.2	.7	2.6	.0	.7	.0		84.4
TOT PCT	4.1	4.3	2.1	.0	.0	.0	.1	10.5	1.8	.9	2.0	.0	.9	.3		83.9
TOT OBS:	1174															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	2.6	3.1	1.1	.4	.0		7.8	14.5	7.4	7.3	6.3	5.7	10.8	7.6	9.4	7.2
NE	.6	3.4	3.0	.8	.4	.0		8.2	12.9	7.3	15.8	6.7	7.8	5.8	11.8	5.3	9.7
E	.8	2.9	4.1	1.5	.3	.0		9.5	14.0	8.1	19.0	7.1	13.4	8.0	12.9	2.9	8.6
SE	2.1	5.0	3.3	1.0	.2	.1		11.7	11.0	12.6	13.8	8.1	11.0	9.9	16.7	12.1	11.5
S	1.7	6.1	3.6	.9	.2	.0		12.6	10.8	11.6	9.0	11.3	13.6	12.4	10.3	16.6	14.6
SW	1.8	9.6	7.0	2.1	.0	.0		20.6	11.5	19.9	12.3	24.4	20.4	24.1	17.0	22.7	19.9
W	1.4	5.6	6.2	1.8	.4	.0		15.5	13.6	17.4	11.8	23.1	12.6	15.2	12.1	17.6	13.2
NW	1.0	3.8	3.7	1.6	.2	.0		10.4	13.5	11.7	9.3	9.8	9.3	12.3	9.8	9.6	8.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.9							3.9	.0	4.0	2.0	3.1	6.1	1.6	1.8	3.9	7.0
TOT OBS	195	556	483	156	30	2	1422		12.0	300	100	130	214	253	112	128	185
TOT PCT	13.7	39.1	34.0	11.0	2.1	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.7	3.1	2.4	.6	.1		7.8	14.5	7.4	6.0	9.8	8.1
NE	1.8	4.3	1.3	.7	*		8.2	12.9	9.4	7.4	7.7	7.9
E	2.1	3.8	3.0	.6	.1		9.5	14.0	10.8	11.0	9.5	6.3
SE	4.6	4.6	1.9	.5	.2		11.7	11.0	12.9	9.9	12.0	11.7
S	4.3	5.8	1.9	.5	.1		12.6	10.8	10.9	12.7	11.7	15.4
SW	5.7	10.1	4.0	.8	.0		20.6	11.5	18.0	21.9	21.9	20.7
W	3.2	6.8	4.1	1.4	.0		15.5	13.6	16.0	16.6	14.2	15.0
NW	2.1	4.7	2.8	.7	.0		10.4	13.5	11.1	9.5	11.5	9.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.9						3.9	.0	3.5	4.9	1.6	5.8
TOT OBS	417	615	304	81	5	1422		12.0	400	344	365	313
TOT PCT	29.3	43.2	21.4	5.7	.4		100.0		100.0	100.0	100.0	100.0

MAY

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1876-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.5	10.8	37.8	34.3	12.0	1.5	.3	12.1	100.0	400
06&09	4.9	11.6	37.8	35.8	7.6	2.3	.0	11.4	100.0	364
12&15	1.6	4.9	42.2	37.0	12.3	1.6	.3	13.0	100.0	365
18&21	5.8	12.5	38.7	28.1	11.8	3.2	.0	11.5	100.0	313
TOT	55	140	556	483	156	30	2	12.0		1422
PCT	3.9	9.8	39.1	34.0	11.0	2.1	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.0	1.6	1.9	3.6		5.9
NE	.6	.9	1.4	2.4		6.4
E	1.0	.9	2.0	1.7		5.6
SE	2.8	1.9	3.4	2.0		4.7
S	5.7	2.8	2.3	1.6		3.5
SW	10.9	6.2	6.7	1.1		3.4
W	6.4	5.0	5.8	2.8		4.1
NW	3.3	2.5	4.7	1.6		4.6
VAR	.0	.0	.0	.0		.0
CALM	1.9	.0	.4	.2		2.2
TOT OBS	180	111	153	91	535	4.2
TOT PCT	33.6	20.7	28.6	17.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.4	1.1	2.5	.4	.1	.0	.0	.0	3.6	
NE	.0	.0	.2	.8	1.4	.4	*	.0	.0	.0	1.9	
E	.0	.0	.2	1.0	1.6	.2	.0	.0	.0	.0	2.2	
SE	.0	.0	.2	1.4	1.7	.7	.4	.0	.0	.0	3.7	
S	.0	.0	.6	.8	1.3	.3	.0	.3	.0	.0	3.2	
SW	.0	.0	.4	1.1	1.6	1.4	.1	.3	.0	.0	20.2	
W	.0	.0	.0	2.2	2.7	.9	.1	.0	.0	.2	13.9	
NW	.0	.0	.2	1.6	2.0	.7	.2	.0	.0	.0	7.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	2.1	
TOT OBS	0	0	11	34	80	27	6	3	0	1	353	535
TOT PCT	.0	.0	2.1	10.1	15.0	5.0	1.1	.6	.0	.2	66.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >5OYD	* OR >0
* OR >6500	.2	.2	.2	.2	.2	.2	.2	.2
* OR >5000	.4	.6	.9	.9	.9	.9	.9	.9
* OR >3500	1.5	1.7	2.0	2.0	2.0	2.0	2.0	2.0
* OR >2000	5.9	7.0	7.5	7.5	7.5	7.5	7.5	7.5
* OR >1000	17.3	21.3	22.4	22.4	22.4	22.4	22.4	22.4
* OR >600	23.5	30.5	32.4	32.4	32.4	32.4	32.4	32.4
* OR >300	24.3	32.0	34.2	34.4	34.4	34.4	34.4	34.4
* OR >150	24.3	32.0	34.2	34.4	34.4	34.4	34.4	34.4
* OR > 0	24.3	32.2	34.4	34.6	34.6	34.6	34.6	34.6
TOTAL	132	175	187	188	188	188	188	188

TOTAL NUMBER OF OBS: 544 PCT FREQ NH <5/8: 65.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	.2	TOTAL OBS
6.3	18.0	17.5	12.9	10.8	6.3	7.2	7.2	14.0	.2	573

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.1	.0	.1	.3	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.1	.0	.1	.3	
1/2<1	PCP	.1	.3	.1	.3	*	.0	.1	.1	.0	.0	1.0	
	NO PCP	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.4	.2	.3	*	.0	.1	.1	.0	.0	1.1	
1<2	PCP	.0	.0	*	*	.1	.0	.1	.0	.0	.1	.3	
	NO PCP	.1	.0	.0	.0	.0	.3	.0	.1	.0	.0	.4	
	TOT %	.1	.0	*	*	.1	.3	.1	.1	.0	.1	.8	
2<5	PCP	.2	*	.3	.5	.0	.1	.2	.0	.0	.0	1.2	
	NO PCP	.4	.3	.2	.2	.2	.7	.1	.2	.0	.2	2.4	
	TOT %	.7	.3	.5	.7	.2	.8	.3	.2	.0	.2	3.8	
5<10	PCP	1.1	1.4	1.0	.2	.2	.6	.4	.8	.0	.0	5.5	
	NO PCP	1.7	1.9	2.9	2.1	3.2	4.8	2.4	2.9	.0	1.2	22.9	
	TOT %	2.8	3.4	4.0	2.3	3.4	5.4	2.9	3.6	.0	1.2	28.4	
10+	PCP	.7	.2	.0	.2	.1	.4	.4	.6	.0	.0	2.4	
	NO PCP	3.7	3.6	4.3	7.7	8.2	15.2	11.3	6.7	.0	2.4	63.2	
	TOT %	4.3	3.8	4.3	7.9	8.3	15.6	11.7	7.3	.0	2.4	65.6	
	TOT OBS												1148
	TOT PCT	8.0	8.0	9.0	11.1	12.0	22.1	15.0	10.8	.0	4.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.1	.0	.0	.0	.0	.0	.1	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.1	.0	.1	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.1	.1	.1	*	.1	.0	.0		.6	
	11-21	.1	.0	.0	*	*	.0	.0	.1	.0		.3	
	22+	.0	.1	*	.2	.0	.1	.1	.0	.0		.5	
	TOT %	.1	.4	.1	.3	.1	.1	.2	.1	.0	.0	1.3	
1<2	0-3	.0	.0	.0	.0	.1	.2	.1	.0	.0	.1	.4	
	4-10	.1	.0	*	*	.0	.3	.0	.1	.0		.6	
	11-21	.0	.0	*	*	.1	.0	.1	.1	.0		.3	
	22+	*	.0	.0	.0	.1	.0	.0	*	.0		.2	
	TOT %	.1	.0	.1	.1	.3	.5	.2	.2	.0	.1	1.5	
2<5	0-3	.3	.1	.1	.0	.0	.3	.1	.1	.0	.2	1.2	
	4-10	.1	*	.0	.0	.2	.5	.1	*	.0		1.0	
	11-21	.1	.1	.2	.2	.2	.0	.1	*	.0		.8	
	22+	.2	.1	.2	.5	.1	.0	.0	.0	.0		1.0	
	TOT %	.7	.3	.5	.6	.4	.9	.3	.1	.0	.2	4.0	
5<10	0-3	.0	.4	.5	.5	.7	.3	.4	.4	.0	1.2	4.4	
	4-10	1.0	1.6	.9	.9	.9	3.2	1.0	.5	.0		10.0	
	11-21	1.2	.9	1.5	.7	1.1	1.1	.9	1.2	.0		8.6	
	22+	.5	.4	1.0	.2	.6	.7	.4	.9	.0		4.7	
	TOT %	2.7	3.4	3.9	2.3	3.3	5.3	2.8	3.0	.0	1.2	27.9	
10+	0-3	.3	.2	.3	1.7	1.1	1.3	.9	.5	.0	2.4	8.8	
	4-10	1.4	1.5	1.8	3.6	4.5	6.5	4.5	3.1	.0		26.8	
	11-21	1.7	1.7	1.7	2.1	2.6	6.2	4.4	2.7	.0		23.0	
	22+	.8	.4	.4	.5	.4	1.5	1.7	.9	.0		6.5	
	TOT %	4.2	3.8	4.1	7.9	8.5	15.4	11.4	7.2	.0	2.4	65.0	
	TOT OBS												1188
	TOT PCT	7.8	8.0	8.7	11.2	12.5	22.2	14.9	10.7	.0	4.0	100.0	

MAY

PERIOD: (PRIMARY) 1930-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	.0	12.4	14.4	4.6	.7	.7	.0	.0	32.7	67.3	153
06&09	.0	.0	3.9	11.8	14.5	5.3	.7	.7	.0	.0	36.8	63.2	152
12&15	.0	.0	2.9	7.4	12.5	5.1	2.2	.0	.0	.7	30.9	69.1	136
18&21	.8	.0	.8	5.8	16.5	6.6	.8	1.7	.0	.0	33.1	66.9	121
TOT	1	0	11	54	81	30	6	4	0	1	188	374	562
PCT	.2	.0	2.0	9.6	14.4	5.3	1.1	.7	.0	.2	33.5	66.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	1.2	1.2	3.0	24.6	69.8	334
06&09	.3	2.3	2.9	6.8	35.0	52.8	309
12&15	.0	1.3	.7	2.7	29.6	65.7	297
18&21	.7	.4	1.1	3.3	22.6	71.9	274
TOT	4	16	18	48	340	788	1214
PCT	.3	1.3	1.5	4.0	28.0	64.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	.0	14.7	18.7	66.7	150
06&09	.0	4.2	18.1	20.8	61.1	144
12&15	.0	3.1	11.5	21.5	66.9	130
18&21	.8	1.7	8.3	25.0	66.7	120
TOT	1	12	73	116	355	544
PCT	.2	2.2	13.4	21.3	65.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.1	.0	.1	.0	.0	.0	2	.2
70/74	.0	.0	.0	.1	.0	.0	.3	.1	5	.5
65/69	.0	.1	.0	.2	1.3	3.1	3.3	3.4	118	11.3
60/64	.0	.0	.3	1.4	9.6	15.6	12.9	11.9	539	51.7
55/59	.1	.0	.1	1.7	5.2	8.7	6.8	6.5	304	29.2
50/54	.0	.0	.1	.6	1.4	1.4	1.6	1.4	69	6.6
45/49	.0	.0	.0	.0	.1	.0	.1	.2	4	.4
40/44	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
TOTAL	1	1	6	42	186	301	260	245	1042	100.0
PCT	.1	.1	.6	4.0	17.9	28.9	25.0	23.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	*	.1	.0	.0	.0	.0	.1
.2	.0	.0	.0	.0	.0	.0	.1	.0	.1
1.7	1.3	1.1	.7	.6	1.2	1.7	2.8	.0	.2
4.6	4.5	4.9	6.1	5.4	10.7	8.7	5.5	.0	1.3
.6	.4	1.4	3.2	5.4	9.8	5.0	1.6	.0	1.7
.0	.1	.3	1.2	1.5	1.5	1.4	.3	.0	.3
.0	.0	.0	.2	.0	.0	.1	.0	.0	.1
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
7.2	6.3	7.7	11.5	13.0	23.2	16.8	10.4	.0	3.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	81	70	68	63	55	52	49	62.3	400
06&09	69	68	66	61	54	52	50	60.6	345
12&15	69	67	65	61	54	50	45	60.4	369
18&21	71	67	65	60	52	48	44	59.5	318
TOT	81	69	66	61	54	51	44	60.8	1432

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.8	23.7	25.1	22.0	21.4	77	295
06&09	.0	4.1	17.5	29.7	22.3	26.4	80	269
12&15	.4	3.2	16.7	36.1	23.4	20.2	79	252
18&21	.0	2.8	11.3	25.4	33.1	27.4	82	248
TOT	1	49	187	308	266	253	79	1064

MAY

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1876-1977

AREA 0026 AUCKLAND EAST
36.1S 175.9E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
7/8	.0	.0	.0	.0	.2	.1	.1	4	.0	.5
6	.0	.0	.0	.1	.1	.2	.0	4	.0	.5
5	.0	.0	.0	.1	.1	.5	.1	7	.0	.8
4	.0	.0	.0	.1	.7	.1	.5	12	.0	1.4
3	.0	.0	.0	.1	1.3	1.1	.1	22	.1	2.5
2	.0	.0	.0	.8	2.3	2.6	.1	49	.4	5.5
1	.0	.0	.0	.8	2.8	2.9	.0	56	.1	6.4
0	.0	.1	.1	.6	9.1	2.2	.0	101	.0	12.1
-1	.0	.1	.0	2.2	7.6	2.0	.0	99	.0	11.9
-2	.0	.0	.2	3.8	8.3	.7	.0	111	.2	13.1
-3	.0	.0	.6	3.4	6.0	.8	.0	90	.5	10.3
-4	.0	.1	1.0	4.5	4.9	.1	.0	105	.4	12.2
-5	.0	.0	1.0	3.2	3.2	.1	.0	63	.4	7.2
-6	.0	.1	1.2	1.7	1.4	.0	.0	37	.2	4.2
-7/-8	.0	1.0	1.7	1.8	.6	.0	.0	42	.0	5.0
-9/-10	.1	.6	1.0	.8	.0	.0	.0	19	.0	2.3
-11/-13	.2	.5	.5	.4	.1	.0	.0	14	.0	1.7
TOTAL	3	19	60	221	409	114	8	834	19	815
PCT	.4	2.3	7.2	26.5	49.0	13.7	1.0	100.0	2.3	97.7

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.2	.0	.0	.0	.0	.5
1-2	.0	1.8	.0	.0	.0	.0	1.8
3-4	.0	.2	.6	.4	.0	.0	1.2
5-6	.0	.0	1.2	.4	.0	.0	1.6
7	.0	.0	.4	.4	.0	.0	.8
8-9	.0	.0	.7	.2	.2	.0	1.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.2	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.2	2.9	1.6	.4	.0	7.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.2	.0	.0	.0	.0	.3
1-2	.1	.8	.1	.0	.0	.0	.9
3-4	.0	.2	.6	.0	.0	.0	.8
5-6	.0	.2	.8	.6	.0	.0	1.6
7	.0	.0	.2	.3	.0	.0	.5
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.1	.1	.0	.0	.1
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.4	1.7	1.6	.0	.0	4.8

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.2	1.1	.6	.0	.0	.0	1.9
3-4	.0	.4	.4	.0	.0	.0	.8
5-6	.0	.0	.9	.4	.0	.0	.9
7	.0	.0	.0	.4	.2	.0	.6
8-9	.2	.0	.0	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.2	.4	.0	.0	.5
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	1.6	1.6	1.3	.2	.0	5.0

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.4	.0	.0	.0	.0	1.7
1-2	.8	2.3	.2	.0	.0	.0	3.3
3-4	.0	.6	.4	.2	.0	.0	1.2
5-6	.0	.0	1.2	.4	.0	.0	1.6
7	.0	.0	.9	.4	.1	.0	1.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.2	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	4.3	2.7	1.1	.1	.2	9.4

PERIOD: (OVER-ALL) 1963-1977 MAY AREA 0026 AUCKLAND EAST 36.1S 175.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.2	3.9	.4	.0	.0	.0	4.6
3-4	.0	1.6	1.1	.0	.0	.0	2.7
5-6	.0	.0	2.3	.4	.0	.0	2.6
7	.0	.2	.7	.2	.0	.0	1.1
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.3	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.2	.2	.0	.0	.3
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.4	.0	.4
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	6.0	4.9	1.3	.6	.0	12.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.7	6.4	2.3	.0	.0	.0	9.4
3-4	.0	2.0	4.3	.2	.0	.0	6.5
5-6	.0	.4	3.0	1.5	.0	.0	4.9
7	.0	.1	1.5	.2	.0	.0	1.8
8-9	.0	.0	.6	.3	.0	.0	.9
10-11	.0	.0	.4	.2	.0	.0	.6
12	.0	.2	.0	.6	.0	.0	.8
13-16	.0	.0	.1	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	9.3	12.2	3.3	.0	.0	25.4

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	4.0	1.4	.0	.0	.0	5.4
3-4	.2	2.0	4.3	.6	.0	.0	7.1
5-6	.0	.2	1.7	.6	.0	.0	2.5
7	.0	.2	1.1	1.0	.0	.0	2.4
8-9	.0	.2	.2	.4	.2	.0	.9
10-11	.0	.0	.2	.6	.2	.0	1.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.2	.0	.0	.4
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.2	.0	.2	.0	.4
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	6.9	9.1	3.4	.8	.0	20.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.3	.0	.0	.0	.0	.3	
1-2	.0	2.5	.5	.0	.0	.0	3.0	
3-4	.0	.7	2.4	.6	.0	.0	4.0	
5-6	.0	.2	1.5	.4	.2	.0	2.3	
7	.0	.0	.1	.0	.0	.0	.1	
8-9	.0	.1	1.0	.0	.0	.0	1.0	
10-11	.0	.0	.1	.4	.2	.0	.7	
12	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.5	.0	.0	.5	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	3.7	5.7	2.2	.4	.0	12.1	97.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.1	2.9	.0	.0	.0	.0	6.0	
1-2	1.9	22.9	5.6	.0	.0	.0	30.4	
3-4	.2	7.6	14.5	2.1	.0	.0	24.4	
5-6	.0	1.0	12.0	4.8	.2	.0	18.0	
7	.0	.4	5.0	2.9	.2	.0	8.5	
8-9	.2	.2	2.3	1.4	.4	.0	4.8	
10-11	.0	.0	.6	1.4	.4	.0	2.5	
12	.0	.2	.2	1.2	.0	.2	1.9	
13-16	.0	.2	.2	1.7	.2	.0	2.3	
17-19	.0	.0	.0	.2	.4	.0	.6	
20-22	.0	.0	.2	.0	.2	.0	.4	
23-25	.0	.0	.0	.0	.4	.0	.4	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.4	35.5	40.7	15.7	2.5	.2	100.0	484

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	11.8	12.8	7.9	6.2	2.3	2.1	.6	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	238	5
6-7	.0	1.0	3.9	5.8	4.8	1.7	1.7	1.2	1.0	.6	.2	.2	.0	.0	.0	.0	.0	.0	.0	114	7
8-9	.0	.6	1.6	2.1	3.1	2.1	1.7	1.0	1.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	71	8
10-11	.0	.6	.8	.8	1.6	.0	.4	.2	.4	.2	.2	.4	.2	.2	.0	.0	.0	.0	.0	30	10
12-13	.0	.0	.8	.0	.8	.2	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	7
>13	.0	.0	.0	1.0	.4	.0	.4	.2	.2	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	14	10
INDET	2.8	.0	1.4	.8	.8	.6	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	38	5
TOTAL	14	72	109	95	91	36	39	19	19	11	5	4	1	1	0	0	0	0	0	516	6
PCT	2.7	14.0	21.1	18.4	17.6	7.0	7.6	3.7	3.7	2.1	1.0	.8	.2	.2	.0	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	10.8	12.3	2.1	.0	.0	.0	.0	25.1	5.7	1.2	2.1	.0	.9		.0	65.0
NE	15.1	6.0	6.2	.0	.0	.0	.0	27.3	1.7	1.7	7.4	.0	.8		.0	61.2
E	15.7	4.7	6.0	.0	.0	.0	.0	27.3	2.4	.0	1.8	.0	.0		.0	68.4
SE	7.8	9.3	2.0	.0	.0	.0	.0	19.1	.9	1.5	.0	.0	.2		.0	79.1
S	2.5	1.7	2.2	.0	.0	.0	.0	6.4	1.2	2.7	1.3	.0	.5		.0	88.6
SW	.4	2.7	.0	.0	.0	.0	.0	3.1	.4	.0	1.6	.0	.2		.0	94.6
W	4.4	1.7	1.4	.0	.0	.0	.0	7.5	3.5	1.5	1.5	.0	1.1		.3	84.9
NW	7.0	5.8	5.1	.0	.0	.0	.0	17.9	2.3	1.4	.2	.0	1.1		.0	77.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	1.5	1.5	.0	.0	.0	.0	2.9	.0	.0	4.4	.0	14.7		.0	77.9
TOT PCT	6.4	4.5	2.6	.0	.0	.0	.0	13.5	1.9	1.1	2.0	.0	1.4		.1	80.4
TOT OBS:	1257															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.3	3.3	2.2	.0	.0	.0	.0	11.8	1.9	.0	2.7	.0	2.5		.0	81.1
06&09	7.7	3.4	4.0	.0	.0	.0	.0	15.0	1.8	.9	1.2	.0	.9		.0	80.4
12&15	6.5	7.0	1.4	.0	.0	.0	.0	15.5	1.1	2.5	2.5	.0	.0		.0	79.5
18&21	4.7	4.1	2.5	.0	.0	.0	.0	11.4	2.5	1.0	1.6	.0	1.6		.3	81.0
TOT PCT	6.3	4.4	2.6	.0	.0	.0	.0	13.3	1.9	1.2	2.0	.0	1.3		.1	80.5
TOT OBS:	1285															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	2.6	2.2	.7	.3	.1		6.6	13.7	5.7	6.5	4.6	4.3	8.7	5.2	10.9	5.5
NE	1.9	4.4	1.6	.8	.2	.1		9.0	10.5	10.8	12.0	6.1	10.5	7.1	8.1	6.4	9.3
E	1.4	2.9	2.7	1.8	.6	.1		9.5	14.5	7.9	8.8	9.5	12.9	12.3	11.7	4.5	7.2
SE	2.3	4.3	2.4	1.4	.2	.0		10.7	10.8	11.5	11.8	9.5	8.6	10.0	12.7	10.9	11.4
S	2.0	5.7	3.1	.8	.2	.0		11.8	10.1	12.5	12.0	13.3	10.3	12.0	14.0	10.7	11.4
SW	3.1	8.0	6.5	1.9	.1	.0		19.6	10.9	18.9	18.3	23.8	19.1	18.6	19.4	19.4	21.4
W	2.0	6.6	5.5	2.5	.3	.0		16.8	12.5	18.4	16.2	14.6	15.2	16.5	14.4	23.3	15.3
NW	1.6	4.3	3.7	1.4	.1	.1		11.2	12.3	9.9	10.6	17.7	9.8	12.7	12.1	11.8	9.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.8							4.8	.0	4.5	3.7	2.9	7.7	2.2	2.5	2.3	9.0
TOT OBS	296	978	413	167	29	5	1488		11.2	312	108	103	264	230	120	129	222
TOT PCT	19.9	38.8	27.8	11.2	1.9	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.8	2.6	1.6	.5	.1		6.6	13.7	5.9	5.8	7.5	7.5
NE	3.7	3.5	1.2	.4	.2		9.0	10.5	11.1	8.7	7.4	8.3
E	2.8	3.1	2.4	1.1	.2		9.5	14.5	8.1	11.9	12.1	6.2
SE	4.5	3.6	2.0	.5	.0		10.7	10.8	11.5	8.9	10.9	11.2
S	4.9	4.7	1.9	.4	.0		11.8	10.1	12.4	11.2	12.6	11.1
SW	7.0	7.9	3.9	.8	.0		19.6	10.9	18.7	20.4	18.9	20.7
W	5.1	7.0	3.2	1.3	.1		16.8	12.5	17.9	15.1	15.8	16.2
NW	2.9	5.5	2.3	.5	.1		11.2	12.3	10.1	12.1	12.5	10.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.8						4.8	.0	4.3	6.0	2.3	6.6
TOT OBS	556	966	275	82	9	1488		11.2	420	367	350	351
TOT PCT	37.4	38.0	18.5	5.5	.6		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.3	16.9	38.1	27.4	11.7	1.4	.2	11.1	100.0	420
06&09	6.0	19.1	36.5	27.5	8.7	1.6	.5	10.1	100.0	367
12&15	2.3	4.9	44.6	28.0	16.3	3.7	.3	13.6	100.0	350
18&21	6.6	19.1	36.5	28.2	8.3	1.1	.3	10.1	100.0	351
TOT	71	225	578	413	167	29	5	11.2		1488
PCT	4.8	15.1	38.8	27.8	11.2	1.9	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.6	1.3	1.5	4.4		6.4
NE	.3	.2	1.7	3.6		7.0
E	.6	.7	2.1	6.1		6.8
SE	4.3	1.8	1.9	3.4		4.3
S	5.3	2.5	3.3	1.8		3.8
SW	8.2	4.4	3.5	.7		2.9
W	6.0	4.4	6.5	1.7		4.0
NW	2.4	2.6	3.6	4.4		5.3
VAR	.0	.0	.0	.0		.0
CALM	1.4	.2	1.6	.7		4.4
TOT OBS	126	79	112	117	434	4.6
TOT PCT	29.0	18.2	25.8	27.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.3	2.0	2.3	.2	.5	.0	.0	.0	2.6	
NE	.0	.0	1.7	1.0	.9	.7	.2	.0	.0	.0	1.3	
E	.2	.0	1.1	3.5	2.2	.0	.2	.0	.0	.0	2.4	
SE	.3	.0	.2	1.5	1.9	.0	.2	.2	.0	.0	7.0	
S	.0	.0	.5	1.2	1.4	.8	.2	.0	.0	.2	8.6	
SW	.0	.0	.0	.8	1.8	.6	.1	.0	.0	.0	13.5	
W	.0	.0	.2	1.7	2.8	.9	.4	.0	.1	.0	12.6	
NW	.0	.2	.7	2.6	1.4	.5	.2	.0	.1	.0	7.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.2	.0	.2	.2	.2	.0	.0	.0	.0	3.0	
TOT OBS	2	2	21	69	65	17	9	1	1	1	252	434
TOT PCT	.5	.5	4.8	14.9	15.0	3.9	2.1	.2	.2	.2	58.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.2	.5	.5	.5	.5	.5	.5	.5
= OR >4000	.5	.7	.7	.7	.7	.7	.7	.7
= OR >3500	1.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
= OR >2000	4.8	6.6	6.6	6.6	6.6	6.6	6.6	6.6
= OR >1000	15.2	20.5	21.1	21.4	21.4	21.4	21.4	21.4
= OR >600	21.4	31.8	35.0	35.9	35.9	35.9	35.9	35.9
= OR >300	22.3	34.5	39.1	40.2	40.5	40.7	40.7	40.7
= OR >150	22.3	34.8	39.3	40.5	40.7	40.9	41.1	41.1
= OR > 0	22.3	35.0	39.5	40.7	41.1	41.4	41.6	41.6
TOTAL	98	154	174	179	181	182	183	183

TOTAL NUMBER OF OBS: 440

PCT FREQ NH <5/8: 58.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.3	13.2	17.7	10.9	6.6	6.0	6.0	7.4	20.2	.4	485

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	*	.1	.0	.0	.1	.0	.0	.2	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	TOT %	.0	.1	.0	*	.1	.0	.0	.1	.0	.2	.4	
1/2<1	PCP	.1	.2	.0	.1	.0	.0	.0	.1	.0	.0	.4	
	NO PCP	.1	.2	.0	.0	.1	.0	.1	.0	.0	.0	.4	
	TOT %	.2	.3	.0	.1	.1	.0	.1	.1	.0	.0	.8	
1<2	PCP	.2	.3	.1	.2	.0	.0	.1	.1	.0	.0	.9	
	NO PCP	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.2	
	TOT %	.2	.3	.1	.2	.0	*	.2	.1	.0	.0	1.0	
2<5	PCP	.2	.7	.2	.4	.0	.0	.2	.3	.0	.0	2.1	
	NO PCP	.3	.6	.2	.2	.4	.8	.5	.4	.0	.2	3.5	
	TOT %	.5	1.3	.5	.6	.4	.8	.7	.7	.0	.2	5.6	
5<10	PCP	.9	1.4	1.5	1.0	.3	.4	.5	1.2	.0	.1	7.3	
	NO PCP	1.8	3.1	3.1	2.7	3.4	6.7	5.3	2.8	.0	1.6	30.4	
	TOT %	2.7	4.5	4.6	3.6	3.7	7.1	5.8	4.0	.0	1.7	37.7	
10+	PCP	.3	.1	.5	.4	.4	.2	.4	.3	.0	.1	2.7	
	NO PCP	2.8	3.1	3.2	5.6	7.2	11.4	8.8	6.0	.0	3.3	51.8	
	TOT %	3.1	3.2	3.8	6.3	7.6	11.6	9.2	6.3	.0	3.4	54.5	
	TOT OBS												1257
	TOT PCT	6.6	9.6	8.9	10.7	11.9	19.5	15.9	11.3	.0	5.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	*	.1	.0	.0	.1	.0		.2	
	TOT %	.0	.1	.0	*	.1	.0	.0	.1	.0	.2	.4	
1/2<1	0-3	.0	.1	.0	.0	.0	*	.2	.0	.0	.0	.3	
	4-10	.2	.2	.0	.0	.1	.0	.1	.0	.0		.5	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	TOT %	.2	.3	.0	.1	.1	*	.3	.1	.0	.0	1.0	
1<2	0-3	.1	.0	.1	.0	.0	.1	.1	.1	.0	.0	.4	
	4-10	*	*	.0	.0	.0	.2	*	.1	.0		.4	
	11-21	.0	.1	.1	.2	*	*	.0	.0	.0		.4	
	22+	.1	.2	.0	.0	.0	.0	.1	.0	.0		.3	
	TOT %	.2	.3	.1	.2	*	.3	.2	.1	.0	.0	1.5	
2<5	0-3	.1	.3	.1	.2	.1	.3	.1	.1	.0	.2	1.5	
	4-10	.2	.3	.1	.1	.2	.4	.1	.3	.0		1.7	
	11-21	.1	.3	.2	.0	.2	.1	.3	.3	.0		1.4	
	22+	.1	.4	.3	.3	.1	*	.1	.1	.0		1.4	
	TOT %	.5	1.3	.6	.6	.5	.8	.7	.8	.0	.2	6.0	
5<10	0-3	.2	.6	.4	.8	1.0	2.0	.9	.3	.0	1.6	7.9	
	4-10	.9	2.6	1.4	1.3	1.4	2.6	2.1	1.6	.0		13.9	
	11-21	1.2	.5	1.4	.9	.8	1.6	1.6	1.3	.0		9.3	
	22+	.4	.5	1.4	.6	.4	.6	1.0	.8	.0		5.7	
	TOT %	2.7	4.4	4.6	3.5	3.6	6.9	5.6	3.9	.0	1.6	36.9	
10+	0-3	.4	1.0	1.1	1.4	1.1	1.1	.9	1.1	.0	3.3	11.5	
	4-10	1.1	1.2	1.1	2.9	4.2	4.8	3.8	2.4	.0		21.4	
	11-21	.9	.7	1.1	1.3	2.0	4.5	3.3	2.2	.0		16.1	
	22+	.6	.1	.6	.6	.4	1.1	1.2	.6	.0		5.4	
	TOT %	3.0	3.1	3.9	6.2	7.6	11.6	9.2	6.4	.0	3.3	54.3	
	TOT OBS												1289
	TOT PCT	6.6	9.4	9.2	10.6	11.9	19.6	16.0	11.4	.0	5.3	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	5.8	13.2	14.0	4.1	3.3	.8	.0	.0	41.3	58.7	121
06&09	.9	.9	7.0	15.7	13.0	4.3	3.5	.0	.0	.0	45.2	54.8	115
12&15	.9	.0	2.6	11.4	14.0	3.5	.9	.0	.9	.0	34.2	65.8	114
18&21	.0	.8	2.4	13.8	13.8	2.4	.0	.0	.0	.8	34.1	65.9	123
TOT	2	2	21	64	65	17	9	1	1	1	183	290	473
PCT	.4	.4	4.4	13.5	13.7	3.6	1.9	.2	.2	.2	38.7	61.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	1.1	1.1	4.0	37.3	56.3	373
06&09	.6	1.2	2.4	12.6	39.2	44.0	334
12&15	.0	1.4	.7	1.4	43.2	53.3	285
18&21	.6	.3	1.5	5.2	29.2	63.1	325
TOT	5	13	19	78	488	714	1317
PCT	.4	1.0	1.4	5.9	37.1	54.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	6.4	21.8	23.6	54.5	110
06&09	.9	9.4	26.4	22.6	50.9	106
12&15	.9	3.6	17.3	18.2	64.5	110
18&21	.0	3.5	19.3	17.5	63.2	114
TOT	2	25	93	90	257	440
PCT	.5	5.7	21.1	20.5	58.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.2	.0	.0	.0	.0	2	.2
70/74	.0	.0	.1	.1	.1	.2	.0	.0	5	.5
65/69	.0	.0	.1	.3	.2	.5	.6	.7	25	2.3
60/64	.0	.1	.0	.9	3.5	6.5	7.9	7.1	279	26.0
55/59	.0	.1	.3	1.4	6.7	16.4	14.5	12.2	553	51.6
50/54	.0	.0	.3	.6	2.2	2.7	6.4	4.3	177	16.5
45/49	.0	.0	.0	.0	.3	.7	.8	.8	29	2.7
40/44	.0	.0	.0	.0	.0	.0	.1	.1	2	.2
TOTAL	0	2	8	37	139	290	329	271	1072	100.0
PCT	.0	.2	.7	3.5	13.0	27.1	30.3	25.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.1	.1	.0	.0	.0
.1	.1	.0	.0	.0	.1	.1	.0	.0	.1
.1	.3	.2	.1	.2	.3	.3	.8	.0	.1
3.8	2.8	2.7	1.1	.9	3.2	5.1	5.2	.0	1.2
1.1	3.4	5.3	5.3	7.2	10.9	10.6	4.2	.0	3.5
.6	1.1	.9	2.6	3.2	3.9	2.3	.7	.0	1.3
.0	.1	.1	.4	.4	1.2	.2	.3	.0	.1
.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5.7	7.7	9.1	9.4	12.0	19.9	18.7	11.2	.0	6.3

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	76	72	65	59	53	50	46	58.9	424
06&09	77	66	64	58	51	48	47	57.7	370
12&15	69	64	63	57	52	46	44	57.1	356
18&21	68	64	63	57	48	45	42	56.2	349
TOT	77	66	64	58	50	46	42	57.5	1499

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.3	14.2	30.5	27.8	21.2	80	302
06&09	.0	2.1	11.3	24.8	25.9	35.8	84	292
12&15	.0	5.2	17.7	31.2	37.2	8.7	78	231
18&21	.0	3.6	9.5	22.5	32.0	32.4	83	275
TOT	0	47	142	296	331	274	81	1090

JUNE

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1886-1977

AREA 0026 AUCKLAND EAST
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.2	.0	.0	.0	2	.0	.2
11/13	.0	.0	.0	.0	.2	.2	.0	.0	4	.0	.5
9/10	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
7/8	.0	.0	.0	.0	.1	.0	.0	.1	2	.0	.2
6	.0	.0	.0	.0	.1	.1	.0	.0	2	.0	.2
5	.0	.0	.1	.0	.6	.2	.1	.0	9	.0	1.1
4	.0	.0	.1	.2	1.0	.2	.0	.0	13	.0	1.6
3	.0	.0	.4	.0	2.4	.2	.0	.0	24	.1	2.8
2	.0	.1	.7	1.2	4.3	.2	.0	.0	54	.1	6.6
1	.0	.1	.4	1.9	3.5	.6	.0	.0	52	.1	6.3
0	.0	.4	.4	3.8	5.0	.2	.1	.0	80	.1	9.8
-1	.0	.6	1.0	3.6	3.8	.1	.0	.0	74	.0	9.2
-2	.1	.7	1.4	6.4	1.1	.0	.0	.0	79	.5	9.3
-3	.2	.6	1.4	5.8	.9	.1	.0	.0	73	.1	8.9
-4	.4	.9	3.2	7.3	.9	.1	.0	.0	103	.5	12.3
-5	.0	.6	3.2	4.1	.6	.0	.0	.0	69	.4	8.2
-6	.1	.2	3.8	1.6	.1	.0	.0	.0	48	.0	5.9
-7/-8	.2	1.0	4.6	2.6	.5	.0	.0	.0	72	.2	8.7
-9/-10	.0	.7	1.7	.9	.0	.0	.0	.0	27	.0	3.3
-11/-13	.1	.5	1.0	.4	.0	.0	.0	.0	16	.0	2.0
-14/-16	.1	.2	.0	.0	.0	.0	.0	.0	3	.0	.4
-20/-22	.1	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	12	55	189	322	205	22	3	1	808	18	790
PCT	1.5	6.8	23.4	39.9	25.4	2.7	.2	.1	100.0	2.2	97.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3
1-2	.3	.5	.5	.0	.0	.0	1.3
3-4	.0	1.0	.5	.2	.0	.0	1.7
5-6	.0	.0	1.6	1.0	.0	.0	2.6
7	.0	.0	.0	.0	.3	.0	.3
8-9	.0	.0	.2	.0	.5	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.2	.4
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.3	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.3	.0	.0	.3
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	1.5	2.7	1.7	1.2	.2	7.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	1.0	.3	.0	.0	.0	1.3
3-4	.0	.5	.3	.0	.0	.0	.9
5-6	.0	.1	.9	.8	.0	.0	1.8
7	.0	.0	.3	.3	.0	.3	.8
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.3	.3	.3	.0	.8
12	.0	.0	.0	.3	.3	.0	.5
13-16	.0	.0	.0	.0	.0	.1	.1
17-19	.0	.0	.0	.1	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.9	2.4	1.7	.8	.3	7.0

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.5
1-2	.0	1.8	.5	.0	.0	.0	2.3
3-4	.0	.0	1.8	.0	.0	.0	1.8
5-6	.0	.2	.5	.8	.0	.0	1.5
7	.0	.0	.7	1.0	.2	.0	1.9
8-9	.0	.0	.3	.5	.5	.0	1.3
10-11	.0	.0	.0	.3	.5	.0	.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.3	3.8	2.8	1.3	.0	10.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	3.2	1.1	.0	.0	.0	4.3
3-4	.0	1.1	1.2	.3	.0	.0	2.5
5-6	.0	.3	.9	.6	.0	.0	1.8
7	.0	.0	.1	.9	.3	.0	1.3
8-9	.0	.0	.1	.3	.0	.0	.4
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.8	3.3	2.7	.3	.0	11.1

PERIOD: (OVER-ALL) 1963-1977 JUNE AREA 0026 AUCKLAND EAST 36.1S 175.4E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.3	.0	.0	.0	.0	1.1
1-2	.0	5.1	.7	.0	.0	.0	5.7
3-4	.0	.7	2.1	.0	.0	.0	2.9
5-6	.0	.0	1.9	1.0	.0	.0	2.9
7	.0	.0	.3	.3	.0	.0	.5
8-9	.0	.0	.2	.2	.2	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.1	5.2	1.7	.2	.0	13.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.6
1-2	.0	3.3	.4	.0	.0	.0	3.7
3-4	.0	.9	3.2	.0	.0	.0	4.1
5-6	.0	.8	3.1	1.3	.0	.0	5.3
7	.0	.0	.5	.3	.0	.0	.8
8-9	.0	.0	.0	.3	.1	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.2	7.2	2.1	.1	.0	15.0

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.3	.0	.0	.0	.0	.5
1-2	.3	4.1	1.5	.0	.0	.0	5.9
3-4	.0	1.1	3.1	.0	.0	.0	4.1
5-6	.0	.0	2.5	1.1	.3	.0	3.8
7	.0	.0	1.1	1.1	.3	.0	2.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.3	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.3	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.4	8.1	2.9	.8	.0	17.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.5	.0	.0	.0	.0	.8	
1-2	.5	2.4	.6	.0	.0	.0	3.5	
3-4	.0	.6	2.7	.1	.0	.0	3.4	
5-6	.0	.0	1.9	.9	.0	.0	2.7	
7	.0	.0	.3	.8	.3	.0	1.3	
8-9	.0	.0	.6	.5	.1	.0	1.2	
10-11	.0	.0	.0	.5	.0	.0	.5	
12	.0	.0	.0	.3	.0	.0	.3	
13-16	.0	.0	.0	.0	.1	.0	.1	
17-19	.0	.0	.0	.1	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.8	3.5	6.1	3.1	.4	.0	13.9	96.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.8	2.1	.0	.0	.0	.0	7.9	
1-2	1.1	21.2	5.6	.0	.0	.0	27.8	
3-4	.0	5.8	14.8	.5	.0	.0	21.2	
5-6	.0	1.3	13.2	7.4	.3	.0	22.2	
7	.0	.0	3.2	4.5	1.3	.3	9.3	
8-9	.0	.0	1.6	1.9	1.3	.0	4.8	
10-11	.0	.0	.3	1.6	.8	.0	2.6	
12	.0	.0	.0	1.3	.3	.0	1.6	
13-16	.0	.0	.0	.3	.3	.3	.8	
17-19	.0	.0	.0	.8	.3	.0	1.1	
20-22	.0	.0	.0	.0	.3	.0	.3	
23-25	.0	.0	.0	.0	.3	.0	.3	
26-32	.0	.0	.0	.3	.0	.0	.3	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.9	30.4	38.6	18.5	5.0	.5	100.0	378

PERIOD: (OVER-ALL) 1949-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	9.6	10.4	9.6	3.7	1.5	.5	.2	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	152	4
6-7	.2	1.0	5.2	6.9	5.2	5.9	3.2	1.0	1.0	.7	.7	.0	.0	.2	.0	.0	.0	.0	.0	127	7
8-9	.0	.2	1.2	2.5	3.2	2.0	1.0	.5	2.2	.7	.5	.0	.0	.2	.0	.0	.0	.0	.0	58	9
10-11	.0	.5	.7	1.7	1.2	.7	.2	.0	1.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	27	8
12-13	.0	.0	.5	.0	.2	1.0	.0	.0	.0	.5	.0	.2	.0	.0	.0	.0	.0	.0	.0	10	10
>13	.0	.0	.0	.0	1.7	.2	.2	.0	.2	.2	.0	.5	.2	.0	.0	.0	.0	.0	.0	14	12
INDET	1.7	.2	1.0	.0	.5	.2	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	17	4
TOTAL	12	47	77	84	64	47	22	7	21	11	6	3	1	3	0	0	0	0	0	405	7
PCT	3.0	11.6	19.0	20.7	15.8	11.6	5.4	1.7	5.2	2.7	1.5	.7	.2	.7	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1873-1977

AREA 0026 AUCKLAND EAST
36.3S 175.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	12.8	8.7	7.4	.0	.0	.0	.0	28.8	3.2	1.0	3.2	.0	.0	.0		63.8
NE	12.1	6.2	5.9	.0	.0	.0	.0	24.1	3.1	1.0	1.0	.0	1.0	1.0		69.7
E	10.4	11.1	1.0	.0	.0	.0	.0	22.5	4.7	.0	1.0	.0	.0	.0		71.8
SE	4.2	7.3	2.4	.0	.0	.0	.0	13.9	1.4	.8	2.2	.0	.0	.0		81.6
S	2.9	4.3	3.6	.0	.0	.0	.0	10.9	.0	.0	1.4	.0	.6	.0		87.1
SW	1.4	3.4	1.3	.0	.0	.0	.5	6.6	2.4	.5	.2	.4	1.3	.0		88.9
W	3.0	6.8	1.9	.0	.0	.0	.3	12.0	1.9	.9	1.7	.0	.4	.0		83.2
NW	7.4	5.8	2.5	.0	.0	.0	.0	15.7	4.4	1.1	3.7	.0	.7	.0		74.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	6.1	2.0	.0	.0	.0	.0	.0	8.2	.0	.0	4.1	.0	.0	.0		87.8
TOT PCT	5.3	6.0	2.6	.0	.0	.0	.2	14.1	2.3	.6	1.7	.1	.6	.1		80.7
TOT OBS:	1262															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
0003	5.6	7.7	2.7	.0	.0	.0	.3	16.2	2.1	.0	1.1	.3	1.3	.0		79.0
0609	6.2	2.9	2.9	.0	.0	.0	.3	12.4	2.9	.7	1.0	.0	1.0	.0		82.0
1215	5.0	8.8	2.5	.0	.0	.0	.0	16.4	2.5	1.9	2.8	.0	.0	.0		77.0
1821	4.9	4.2	2.3	.0	.0	.0	.0	11.4	1.3	.3	2.6	.0	.0	.3		84.0
TOT PCT	5.4	6.0	2.6	.0	.0	.0	.2	14.2	2.2	.7	1.8	.1	.6	.1		80.4
TOT OBS:	1306															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	2.8	1.7	1.0	.2	.0		6.5	11.8	9.0	10.8	7.3	4.8	4.6	4.3	6.1	5.8
NE	1.1	3.1	2.4	1.0	.1	.0		7.7	12.0	7.5	10.6	6.5	8.9	7.6	8.7	6.6	6.3
E	1.2	3.0	2.6	.6	.5	.0		7.9	12.7	6.4	5.5	9.5	10.7	11.3	3.7	7.5	6.1
SE	1.8	4.2	3.0	.9	.2	.0		10.1	11.0	11.5	9.6	7.8	9.3	8.5	8.0	11.3	12.6
S	2.7	5.1	4.2	.8	.2	.0		13.0	10.6	13.7	16.1	6.9	13.9	12.8	11.5	13.7	13.2
SW	2.5	7.4	6.0	1.6	.2	.0		17.7	11.2	18.8	12.5	28.2	18.7	15.3	18.9	11.1	18.6
W	2.6	10.0	7.4	2.3	.6	.1		22.9	12.0	20.2	23.1	20.5	19.3	27.0	29.6	28.3	19.3
NW	.7	5.1	3.4	1.3	.2	*		10.7	12.4	9.5	9.9	13.4	9.1	11.0	10.9	14.8	9.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.5							3.5	.0	3.4	1.9	.0	5.4	1.9	4.3	.7	8.4
TOT OBS	255	608	458	140	32	1	1494		11.2	923	104	116	223	267	115	144	202
TOT PCT	17.1	40.7	30.7	9.4	2.1	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.5	2.6	1.0	.4	.0		6.5	11.8	9.4	5.7	4.5	5.9
NE	2.3	3.4	1.4	.5	*		7.7	12.0	8.3	8.0	7.9	6.4
E	2.7	2.6	1.9	.6	.1		7.9	12.7	6.2	10.3	9.0	6.6
SE	4.3	3.2	1.8	.8	*		10.1	11.0	11.0	8.8	8.4	12.1
S	4.9	5.2	2.2	.7	.0		13.0	10.6	14.3	11.5	12.4	13.4
SW	6.1	7.5	3.4	.8	*		17.7	11.2	17.3	22.0	16.4	15.5
W	6.7	10.3	4.7	1.1	.1		22.9	12.0	20.9	19.7	27.7	23.0
NW	2.9	4.9	2.3	.6	*		10.7	12.4	9.6	10.5	11.0	11.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.5						3.5	.0	3.0	3.5	2.6	5.2
TOT OBS	537	592	279	82	4	1494		11.2	427	339	382	346
TOT PCT	35.9	39.6	18.7	5.5	.3		100.0		100.0	100.0	100.0	100.0

JULY

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(OVER-ALL) 1873-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.0	15.5	34.4	34.4	10.3	2.3	.0	11.4	100.0	427
06&09	3.5	13.6	44.5	27.4	9.1	1.8	.0	10.9	100.0	339
12&15	2.6	9.9	42.7	32.2	10.2	2.4	.0	12.1	100.0	382
18&21	5.2	15.0	42.5	27.5	7.5	2.0	.3	10.5	100.0	346
TOT	53	202	608	458	140	32	1	11.2		1494
PCT	3.5	13.5	40.7	30.7	9.4	2.1	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.4	.9	2.5	3.5		6.4
NE	.7	.7	2.5	3.0		6.4
E	1.3	.6	1.3	2.7		5.6
SE	3.4	1.4	1.7	1.4		3.6
S	5.4	1.6	3.0	1.9		3.8
SW	7.8	5.8	3.6	.4		3.1
W	9.9	7.1	8.3	.9		3.5
NW	3.0	3.1	5.8	3.0		4.9
VAR	.0	.0	.0	.0		.0
CALM	.8	.4	.4	.0		2.3
TOT OBS	102	107	144	85	498	4.2
TOT PCT	32.5	21.5	28.9	17.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.0	.2	1.0	2.9	.7	.0	.2	.0	.0	2.2	
NE	.1	.0	.2	1.2	2.0	1.1	.4	.0	.0	.0	2.0	
E	.0	.0	.0	1.6	1.6	.2	.0	.0	.0	.0	2.5	
SE	.1	.0	.2	.1	1.8	.3	.1	.0	.0	.0	5.6	
S	.2	.0	.4	.8	1.4	.7	.2	.0	.0	.0	8.3	
SW	.0	.0	.3	.3	2.3	.3	.0	.0	.0	.0	14.6	
W	.0	.0	.0	2.0	3.4	1.6	.0	.0	.0	.0	19.2	
NW	.0	.0	.2	3.0	2.0	1.2	.4	.0	.0	.0	8.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	1.2	
TOT OBS	2	0	7	49	87	31	5	1	0	0	316	498
TOT PCT	.4	.0	1.4	9.8	17.5	6.2	1.0	.2	.0	.0	63.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
* OR >9000	.2	.2	.2	.2	.2	.2	.2	.2
* OR >3500	1.2	1.4	1.4	1.4	1.4	1.4	1.4	1.4
* OR >2000	6.1	7.5	7.7	7.7	7.7	7.7	7.7	7.7
* OR >1000	19.3	23.6	24.2	24.6	24.8	24.8	24.8	24.8
* OR >600	25.0	32.6	34.4	35.0	35.2	35.2	35.2	35.2
* OR >300	25.3	33.8	35.8	36.3	36.5	36.5	36.5	36.5
* OR >150	25.3	33.8	35.8	36.3	36.5	36.5	36.5	36.5
* OR > 0	25.3	34.0	36.1	36.7	36.9	36.9	36.9	36.9
TOTAL	129	173	184	187	188	188	188	188

TOTAL NUMBER OF OBS: 509 PCT FREQ NH <5/8: 63.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.1	13.8	15.3	13.8	7.3	6.1	6.6	8.8	15.8	.2	537

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
1/2<1	PCP	.0	.2	.2	.1	.1	.1	.0	.1	.0	.0	.7	
	NO PCP	.1	.1	.1	.2	.0	.0	.1	.2	.0	.0	.6	
	TOT %	.1	.3	.2	.2	.1	.1	.1	.3	.0	.0	1.3	
1<2	PCP	.3	.1	.0	.1	*	.1	.0	*	.0	.0	.6	
	NO PCP	.1	.0	.0	.0	.1	.0	.1	*	.0	.0	.2	
	TOT %	.3	.1	.0	.1	.1	.1	.1	.1	.0	.0	.9	
2<5	PCP	.2	.4	.1	.0	.1	.0	.2	.1	.0	.0	1.0	
	NO PCP	.2	.7	.2	.3	.3	.3	.1	.1	.0	.1	2.3	
	TOT %	.4	1.0	.3	.3	.4	.3	.3	.2	.0	.1	3.3	
5<10	PCP	.9	.8	1.3	.7	.6	.7	2.0	1.3	.0	.2	8.4	
	NO PCP	1.3	2.2	2.5	3.2	3.9	5.3	4.8	2.9	.0	1.2	26.7	
	TOT %	2.2	3.0	3.8	3.8	4.6	6.0	6.8	3.6	.0	1.3	35.1	
10+	PCP	.5	.4	.1	.5	.6	.3	.5	.2	.0	.2	3.3	
	NO PCP	2.7	2.9	3.1	5.0	7.0	11.5	14.6	6.7	.0	2.1	55.8	
	TOT %	3.3	3.3	3.3	5.5	7.6	11.8	15.1	7.0	.0	2.3	59.2	
	TOT OBS												1261
	TOT PCT	6.2	7.7	7.7	10.0	12.8	18.3	22.3	11.1	.0	3.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.0	.0	.2	.2	
1/2<1	0-3	.0	.0	.1	.1	.0	.1	.0	.0	.0	.0	.2	
	4-10	.0	.1	.1	.2	.0	.1	.0	.2	.0		.6	
	11-21	.0	.2	.1	.0	.0	.0	.0	.1	.0		.4	
	22+	.1	.0	.0	.0	.1	.0	.1	*	.0		.2	
	TOT %	.1	.3	.2	.2	.1	.2	.1	.3	.0	.0	1.5	
1<2	0-3	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	4-10	.1	.2	.1	*	.1	.1	.1	.1	.0		.7	
	11-21	.1	*	.0	*	*	.1	*	.1	.0		.4	
	22+	.1	.0	.0	.1	.0	.1	.0	*	.0		.3	
	TOT %	.3	.2	.1	.1	.2	.4	.1	.2	.0	.0	1.6	
2<5	0-3	.1	*	.0	.2	.1	.1	.0	*	.0	.1	.6	
	4-10	.1	.4	.1	.2	.1	*	.1	.1	.0		1.0	
	11-21	.1	.2	.0	*	.1	.2	.2	*	.0		.7	
	22+	.1	.4	.3	*	.1	.0	.1	.1	.0		1.1	
	TOT %	.4	1.0	.3	.4	.4	.3	.4	.2	.0	.1	3.4	
5<10	0-3	.3	.7	1.1	.9	1.8	1.3	1.7	.4	.0	1.3	9.6	
	4-10	.9	1.1	1.2	1.6	1.5	3.1	3.2	2.0	.0		14.6	
	11-21	.3	.8	1.1	.9	.9	1.3	1.5	.6	.0		7.3	
	22+	.7	.3	.4	.3	.3	.3	.4	.6	.0		3.2	
	TOT %	2.1	2.9	3.7	3.8	4.6	6.0	6.7	3.6	.0	1.3	34.7	
10+	0-3	.4	.5	.3	1.0	.8	1.3	1.2	.4	.0	2.3	8.1	
	4-10	1.5	1.2	1.5	2.0	3.4	4.8	6.3	2.9	.0		23.6	
	11-21	1.0	1.2	1.0	2.0	3.0	4.5	5.4	2.8	.0		21.0	
	22+	.3	.3	.4	.4	.5	1.1	2.0	.8	.0		5.8	
	TOT %	3.2	3.3	3.2	5.4	7.7	11.7	14.9	6.8	.0	2.3	58.9	
	TOT OBS												1284
	TOT PCT	6.1	7.7	7.7	9.9	12.9	18.5	22.2	11.2	.0	3.8	100.0	

JULY

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.7	.0	1.4	8.3	21.5	7.6	1.4	.0	.0	.0	41.0	59.0	144
06&09	.8	.0	2.5	10.7	13.1	4.9	.0	.8	.0	.0	32.8	67.2	122
12&15	.0	.0	.0	12.4	15.2	6.2	1.4	.0	.0	.0	35.2	64.8	145
18&21	.0	.0	1.6	7.9	15.1	4.8	1.6	.0	.0	.0	31.0	69.0	126
TOT	2	0	7	53	88	32	6	1	0	0	189	348	537
PCT	.4	.0	1.3	9.9	16.4	6.0	1.1	.2	.0	.0	35.2	64.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	1.6	.8	1.9	34.5	61.3	377
06&09	.6	1.9	3.4	5.0	41.6	47.5	320
12&15	.0	1.9	.9	2.8	38.5	55.9	322
18&21	.6	.3	1.3	4.2	27.8	65.7	309
TOT	4	19	21	45	473	766	1328
PCT	.3	1.4	1.4	3.4	35.6	57.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.7	2.9	12.4	30.7	56.9	137
06&09	.9	3.4	15.5	19.0	65.5	116
12&15	.0	.0	15.7	23.1	61.2	134
18&21	.0	1.6	12.3	20.5	67.2	122
TOT	2	10	71	120	318	509
PCT	.4	2.0	13.9	23.6	62.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
65/69	.0	.0	.1	.1	.0	.5	.1	.1	9	.9
60/64	.0	.1	.0	.0	.9	5.2	6.3	5.0	195	18.5
55/59	.0	.3	.2	1.9	6.9	17.6	15.3	10.5	557	52.7
50/54	.0	.0	.2	.9	3.2	5.8	9.1	5.5	260	24.6
45/49	.0	.0	.0	.2	.1	.6	.9	.9	28	2.7
40/44	.0	.0	.0	.0	.2	.1	.1	.2	6	.6
TOTAL	0	4	5	42	120	315	336	234	1056	100.0
PCT	.0	.4	.5	4.0	11.4	29.8	31.8	22.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
.2	.1	.0	.2	.1	.1	.2	.0	.0	.0
3.6	3.1	1.2	.9	.9	1.4	2.9	3.9	.0	.6
2.6	4.7	3.6	4.4	4.8	9.0	14.5	7.5	.0	1.6
.8	.6	1.5	3.1	5.3	5.1	5.5	1.2	.0	1.5
.0	.0	.2	.2	.9	.9	.1	.0	.0	.4
.0	.0	.0	.1	.1	.3	.0	.0	.0	.1
7.1	8.5	6.5	8.9	12.2	16.8	23.1	12.7	.0	4.2

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	66	63	57	51	48	45	57.3	442
06&09	66	63	61	56	50	48	44	55.9	345
12&15	67	63	61	55	48	41	39	55.2	393
18&21	65	64	62	55	47	43	41	55.0	348
TOT	73	64	62	56	49	44	39	55.9	1528

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.3	12.9	32.7	26.7	20.5	79	303
06&09	.0	2.7	13.1	27.0	34.0	23.2	82	259
12&15	.0	3.7	11.5	36.9	33.2	14.8	79	244
18&21	.0	4.7	8.0	23.3	32.7	31.3	83	275
TOT	0	51	123	323	340	244	81	1081

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1873-1977

AREA 0026 AUCKLAND EAST
36.3S 175.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.2	.0	.0	.0	2	.0	.2
11/13	.0	.0	.0	.0	.9	.0	.0	.0	.1	9	.0	1.0
9/10	.0	.0	.0	.0	.1	.1	.1	.0	.0	3	.0	.3
7/8	.0	.0	.0	.0	.3	.0	.3	.0	.0	6	.0	.6
6	.0	.0	.0	.0	.3	.2	.0	.0	.0	5	.0	.5
5	.0	.0	.0	.3	.2	.4	.1	.0	.0	10	.0	1.1
4	.0	.0	.0	.6	1.4	1.3	.0	.0	.0	31	.0	3.3
3	.0	.0	.1	1.5	.5	1.0	.0	.0	.0	29	.0	3.1
2	.0	.0	.5	2.1	1.6	1.5	.1	.0	.0	55	.1	5.8
1	.0	.0	.4	3.5	1.5	.9	.0	.0	.0	59	.2	6.1
0	.0	.0	2.2	2.2	5.5	2.1	.0	.0	.0	113	.4	11.7
-1	.0	.0	2.5	1.7	5.1	.7	.0	.0	.0	94	.3	9.7
-2	.0	.3	1.9	3.2	5.8	1.2	.0	.0	.0	116	.3	12.1
-3	.0	.5	.6	2.9	4.3	.7	.0	.0	.0	85	.2	8.9
-4	.1	.5	.2	5.5	3.7	.3	.0	.0	.0	97	.2	10.2
-5	.0	.4	1.0	5.5	2.9	.1	.0	.0	.0	92	.1	9.7
-6	.4	.1	1.2	3.1	.4	.2	.0	.0	.0	51	.0	5.5
-7/-8	.4	.0	1.3	2.4	.7	.0	.0	.0	.0	45	.1	4.7
-9/-10	.1	.4	1.2	.6	.0	.0	.0	.0	.0	22	.0	2.4
-11/-13	.0	.1	.4	.3	.0	.0	.0	.0	.0	8	.0	.9
-14/-16	.0	.1	.1	.0	.0	.0	.0	.0	.0	2	.0	.2
-17/-19	.1	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	11	24	128	332	330	103	6	0	1	935	19	916
PCT	1.2	2.6	13.7	35.5	35.3	11.0	.6	.0	.1	100.0	2.0	98.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.5
1-2	.2	1.3	1.0	.0	.0	.0	2.5
3-4	.0	.2	1.0	.0	.0	.0	1.2
5-6	.0	.0	.4	.6	.0	.0	1.0
7	.0	.0	.0	.4	.0	.0	.4
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.4	.4	.0	.0	.8
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.9	2.8	2.3	.4	.0	7.7

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.0	.0	.0	.0	.0	.1
1-2	.1	1.3	.5	.0	.0	.0	1.8
3-4	.0	.4	1.6	.1	.0	.0	2.1
5-6	.0	.2	.9	.4	.0	.0	1.5
7	.0	.0	.4	.4	.0	.0	.9
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.2	.3	.1	.0	.5
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.9	3.6	1.3	.1	.0	7.0

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.2	.8	.4	.0	.0	.0	1.3
3-4	.0	.6	.4	.4	.0	.0	1.4
5-6	.0	.0	.6	.4	.0	.0	1.0
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.6	1.6	1.0	.8	.0	5.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.2	1.2	.8	.0	.0	.0	2.2
3-4	.0	.7	2.0	.2	.0	.0	2.9
5-6	.0	.0	1.4	.1	.0	.0	1.4
7	.0	.0	.1	.1	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.4	4.2	.8	.0	.0	7.6

PERIOD: (OVER-ALL) 1963-1977

JULY

AREA 0026 AUCKLAND EAST
36.3S 175.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8
1-2	.0	1.7	1.3	.0	.0	.0	3.1
3-4	.2	1.6	3.3	.0	.0	.0	5.1
5-6	.0	.0	1.1	.0	.0	.0	1.1
7	.0	.0	1.1	.8	.0	.0	1.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.9	6.9	1.0	.2	.0	12.3

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.7	.0	.0	.0	.0	1.0
1-2	.0	4.7	1.2	.0	.0	.0	5.9
3-4	.1	2.1	4.3	1.1	.0	.0	7.6
5-6	.0	.0	1.6	.0	.0	.0	1.6
7	.0	.2	.5	.5	.0	.0	1.2
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	7.7	7.9	1.8	.1	.0	17.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.1	.0	.0	.0	.0	1.4
1-2	.4	6.3	2.0	.0	.0	.0	8.7
3-4	.0	3.3	4.9	1.1	.0	.0	9.3
5-6	.0	.0	3.3	.4	.0	.0	3.7
7	.0	.0	1.7	.8	.0	.0	2.4
8-9	.0	.0	.4	.2	.0	.0	.9
10-11	.0	.0	.0	.4	.2	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.0	.3	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.2	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	10.8	12.6	2.8	.5	.2	27.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.3	.0	.0	.0	.0	.5	
1-2	.1	2.9	1.1	.0	.0	.0	4.1	
3-4	.0	1.7	2.8	.2	.0	.0	4.8	
5-6	.0	.2	1.4	.5	.0	.0	2.1	
7	.0	.0	.3	.3	.0	.0	.6	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.1	.7	.4	.0	1.2	
12	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.1	.0	.0	.1	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.1	.1	.1	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	5.1	5.7	2.0	.3	.1	13.6	98.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.5	3.6	.0	.0	.0	.0	6.2	
1-2	1.9	20.0	8.3	.0	.0	.0	30.1	
3-4	.2	10.8	20.2	3.0	.0	.0	34.0	
5-6	.0	.4	10.6	2.3	.0	.0	13.4	
7	.0	.2	4.2	3.2	.0	.0	7.6	
8-9	.0	.0	.8	.8	.0	.0	1.7	
10-11	.0	.0	.6	1.9	1.1	.0	3.6	
12	.0	.0	.0	.6	.0	.0	.6	
13-16	.0	.2	.0	.6	1.1	.0	1.9	
17-19	.0	.0	.0	.2	.2	.0	.4	
20-22	.0	.0	.0	.0	.2	.2	.4	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.7	35.0	44.8	12.7	2.5	.2	100.0	471

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	12.8	12.2	9.0	4.6	2.4	1.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	220	4
6-7	.0	2.0	4.4	5.8	5.2	3.4	2.8	1.8	2.8	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	140	7
8-9	.2	.8	1.4	1.0	3.4	1.0	1.6	1.2	1.0	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	62	8
10-11	.0	.8	.8	1.4	.2	.0	.2	.0	.8	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	24	8
12-13	.0	.0	1.4	.8	.0	.0	.2	.2	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	7
>13	.0	.0	.0	.0	.8	.0	.0	.2	.4	.4	.2	.0	.0	.4	.0	.0	.0	.0	.0	12	16
INDET	2.0	.4	.4	.4	1.0	.0	.2	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	4
TOTAL	17	83	102	92	76	29	30	20	29	14	4	1	0	2	0	0	0	0	0	499	6
PCT	3.4	16.6	20.4	18.4	15.2	5.8	6.0	4.0	5.8	2.8	.8	.2	.0	.4	.0	.0	.0	.0	.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1873-1977

AREA 0026 AUCKLAND EAST
36.2S 175.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	11.3	7.9	2.5	.0	.0	.0	.6	22.3	5.8	1.2	.8	.0	.8	.0	.0	69.2
NE	10.4	4.1	5.3	.0	.0	.0	.2	26.0	1.9	.6	.8	.0	.6	.0	.0	70.7
E	10.0	7.4	3.2	.0	.0	.0	.0	20.5	3.2	.0	1.6	.0	1.1	.0	.0	73.7
SE	9.2	3.3	5.7	.0	.0	.0	.0	18.2	2.8	.9	1.2	.0	.0	.0	.0	76.8
S	3.1	2.0	2.7	.0	.0	.0	.0	7.8	.5	.0	.0	.0	1.6	.0	.0	90.0
SW	3.6	5.5	1.7	.0	.0	.0	.0	10.7	.4	.1	.9	.0	.5	.0	.0	87.4
W	2.6	5.4	1.3	.0	.0	.0	.0	9.2	1.5	.9	1.6	.0	2.0	.3	.0	84.5
NW	4.5	2.2	4.0	.0	.0	.0	.0	10.7	3.3	1.0	1.5	.0	1.3	.1	.0	82.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.5	.0	5.3	.0	.0	84.2
TOT PCT	6.4	4.6	2.9	.0	.0	.0	.1	14.0	2.0	.6	1.2	.0	1.2	.1	.0	81.1
TOT OBS:	1382															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	5.2	5.5	2.9	.0	.0	.0	.0	13.5	1.9	.0	.7	.0	1.0	.0	.0	82.9
06&09	8.6	3.2	2.6	.0	.0	.0	.3	14.6	1.4	.6	1.4	.0	.3	.6	.0	81.1
12&15	4.8	5.4	1.9	.0	.0	.0	.0	12.1	2.5	1.3	1.0	.0	.6	.0	.0	82.5
18&21	6.6	3.9	4.5	.0	.0	.0	.0	14.9	2.4	.6	1.5	.0	3.0	.0	.0	77.6
TOT PCT	6.3	4.5	3.0	.0	.0	.0	.1	13.8	2.0	.6	1.1	.0	1.2	.1	.0	81.1
TOT OBS:	1420															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.7	2.7	3.9	1.3	.1	.0		9.7	12.6	8.1	11.4	12.1	11.9	9.5	9.6	8.5	8.8
NE	2.5	3.8	2.5	1.5	.2	.1		10.7	11.6	11.4	9.6	9.6	11.6	9.4	8.3	10.6	12.2
E	.8	3.1	2.7	.8	.3	.0		7.7	12.6	7.2	12.2	8.5	7.8	8.5	8.7	8.6	4.0
SE	.9	3.7	2.5	.7	.1	.0		7.9	10.8	7.5	8.5	7.0	6.5	8.2	10.0	10.4	7.7
S	3.0	5.5	4.0	.9	.2	.0		13.5	10.1	14.2	12.0	13.8	12.3	13.1	14.0	8.8	17.1
SW	2.9	4.1	4.9	1.0	.1	.0		17.1	10.1	16.6	13.6	11.6	21.0	16.4	14.0	21.8	17.8
W	3.1	7.1	6.6	2.3	.3	*		19.3	12.1	20.6	20.1	19.1	17.0	19.7	23.0	14.3	20.5
NW	1.5	4.5	4.8	1.0	.1	.1		11.9	11.9	13.1	12.6	17.6	9.4	12.7	8.3	15.0	8.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.1							2.1	.0	1.3	.0	.7	2.4	2.4	4.1	2.1	3.2
TOT OBS	320	668	557	165	25	3	1738		11.2	388	123	136	286	288	123	142	252
TOT PCT	18.4	38.4	32.0	9.5	1.4	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.7	3.7	2.9	.4	.0		9.7	12.6	8.9	12.0	9.5	8.7
NE	3.9	4.1	2.1	.4	.2		10.7	11.6	11.0	11.0	9.1	11.6
E	2.5	3.1	1.5	.3	.1		7.7	12.6	8.4	8.0	8.6	5.6
SE	3.0	3.3	1.3	.3	*		7.9	10.8	7.8	6.6	8.8	8.7
S	5.8	4.5	2.9	.3	.0		13.5	10.1	13.7	12.8	13.4	14.1
SW	6.3	7.5	2.8	.4	.1		17.1	10.1	15.9	18.0	15.7	19.2
W	6.3	7.2	4.5	1.2	.1		19.3	12.1	20.5	17.7	20.7	18.3
NW	2.9	6.4	2.3	.3	.1		11.9	11.9	13.0	12.1	11.4	11.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.1						2.1	.0	1.0	1.9	2.9	2.8
TOT OBS	617	692	351	68	10	1738		11.2	511	422	411	394
TOT PCT	35.5	39.8	20.2	3.9	.6		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.0	17.0	37.0	32.3	10.8	2.0	.0	11.6	100.0	511
06&09	1.9	16.8	40.8	28.4	10.4	1.4	.2	10.8	100.0	422
12&15	2.9	9.0	40.4	37.7	9.2	.2	.5	11.8	100.0	411
18&21	2.8	22.6	35.8	29.7	7.1	2.0	.0	10.2	100.0	394
TOT	96	284	668	557	165	25	3	11.2		1738
PCT	2.1	16.3	38.4	32.0	9.5	1.4	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.1	1.6	3.8	4.2		5.9
NE	1.4	1.0	4.1	2.5		5.6
E	1.0	.9	4.9	2.8		5.8
SE	2.2	1.5	2.3	1.6		4.5
S	3.9	2.5	3.4	2.5		4.3
SW	4.3	4.1	4.1	1.8		4.0
W	6.7	5.7	5.4	1.3		3.7
NW	3.6	3.9	6.0	2.3		4.5
VAR	.0	.0	.0	.0		.0
CALM	.2	.9	.4	.0		3.5
TOT OBS	136	123	191	106	556	4.6
TOT PCT	24.5	22.1	34.4	19.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.1	.1	1.4	3.2	.7	.0	.2	.0	.0	4.9	
NE	.0	*	.0	.7	2.6	.8	.2	.0	.0	.0	4.9	
E	.0	.4	.2	1.5	2.3	.5	.5	.0	.0	.0	4.2	
SE	.0	.0	.1	1.1	1.2	.6	*	.0	.0	.0	4.6	
S	.0	.0	.6	1.3	2.6	.2	.3	.0	.0	.0	7.3	
SW	.0	.0	.2	1.4	1.4	.4	.6	.0	.0	.2	10.1	
W	.0	.0	.2	1.4	2.2	.4	.2	.0	.0	.0	14.4	
NW	.0	.0	.2	1.2	2.5	.6	.6	.0	.0	.0	10.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	1.1	
TOT OBS	0	3	9	37	101	23	14	1	0	1	345	556
TOT PCT	.0	.5	1.6	10.3	18.2	4.5	2.5	.2	.0	.2	62.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.2	.2	.2	.2	.2	.2	.2	.2
* OR >5000	.3	.3	.3	.3	.3	.3	.3	.3
* OR >3500	2.3	2.8	2.8	2.8	2.8	2.8	2.8	2.8
* OR >2000	5.6	7.0	7.3	7.3	7.3	7.3	7.3	7.3
* OR >1000	20.4	25.0	25.5	25.5	25.5	25.5	25.5	25.5
* OR >600	25.7	33.9	35.8	36.0	36.0	36.0	36.0	36.0
* OR >300	26.2	34.9	37.2	37.5	37.5	37.5	37.5	37.5
* OR >150	26.4	35.3	37.7	38.0	38.0	38.0	38.0	38.0
* OR > 0	26.4	35.3	37.7	38.0	38.0	38.0	38.0	38.0
TOTAL	151	202	216	218	218	218	218	218

TOTAL NUMBER OF OBS: 573 PCT FREQ NH <5/8: 62.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
5.8	12.8	17.1	16.6	8.9	8.9	8.2	5.8	15.8	.0	619

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	
1/2<1	PCP	.3	.1	.1	.0	.1	.1	*	.1	.0	.0	.8	
	NO PCP	.0	.1	.0	.1	.0	.0	.1	.0	.0	.1	.3	
	TOT %	.3	.2	.1	.1	.1	.1	.1	.1	.0	.1	1.1	
1<2	PCP	.3	.4	.1	*	.1	.1	.0	.1	.0	.0	1.2	
	NO PCP	.1	*	.1	.0	.0	.0	.1	.1	.0	.0	.4	
	TOT %	.4	.5	.2	*	.1	.1	.1	.2	.0	.0	1.5	
2<5	PCP	.4	.4	.3	.5	.1	.3	.0	.3	.0	.0	2.3	
	NO PCP	.7	.4	.0	.1	1.0	1.2	.9	.5	.0	.1	4.8	
	TOT %	1.1	.8	.3	.6	1.1	1.5	.9	.9	.0	.1	7.2	
5<10	PCP	.8	1.4	.6	.7	.6	1.2	1.1	.7	.0	.0	7.1	
	NO PCP	2.4	2.9	1.4	2.9	4.0	6.3	5.8	2.7	.0	.1	28.6	
	TOT %	3.3	4.3	2.0	3.6	4.6	7.4	7.0	3.3	.0	.1	35.7	
10+	PCP	.2	.6	.3	.1	.3	.3	.6	.2	.0	.0	2.6	
	NO PCP	4.1	5.0	4.0	3.2	7.3	8.7	10.9	7.5	.0	1.0	51.8	
	TOT %	4.4	5.6	4.3	3.3	7.6	9.0	11.5	7.7	.0	1.0	54.4	
	TOT OBS												1382
	TOT PCT	9.4	11.4	6.9	7.7	13.4	18.1	19.6	12.2	.0	1.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0		.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	
1/2<1	0-3	.0	.1	.0	.0	.1	.0	.0	.0	.0	.1	.2	
	4-10	.0	.1	.1	.1	.0	.1	.2	.1	.0		.6	
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0		.1	
	22+	.3	.1	.0	.0	.1	.1	.0	.0	.0		.6	
	TOT %	.3	.3	.1	.1	.1	.2	.2	.1	.0	.1	1.5	
1<2	0-3	.2	.2	.1	.0	.3	.1	.1	.2	.0	.1	1.2	
	4-10	.2	.1	.0	.0	.1	.1	.1	*	.0		.6	
	11-21	.1	.2	.2	*	.0	.0	.1	.0	.0		.6	
	22+	.1	.1	.1	.0	.1	.0	.0	.1	.0		.4	
	TOT %	.6	.7	.3	*	.5	.2	.3	.3	.0	.1	2.9	
2<5	0-3	.4	.3	*	.1	.5	.5	.4	.1	.0	.1	2.4	
	4-10	.2	.4	.1	.2	.3	.8	.3	.5	.0		2.6	
	11-21	.4	*	.0	*	.1	.1	.1	.1	.0		.9	
	22+	.0	.1	.2	.3	.1	.1	.2	.1	.0		1.0	
	TOT %	1.0	.8	.3	.6	1.1	1.4	.9	.8	.0	.1	7.0	
5<10	0-3	.8	1.2	.2	.5	1.5	2.2	1.4	.7	.0	.1	8.7	
	4-10	.7	1.7	.9	1.7	1.2	3.3	2.8	1.3	.0		13.5	
	11-21	.9	.6	.7	.9	1.5	1.3	1.5	1.0	.0		8.3	
	22+	.8	.6	.2	.4	.2	.3	1.0	.2	.0		3.7	
	TOT %	3.2	4.2	1.9	3.5	4.4	7.1	6.7	3.2	.0	.1	34.3	
10+	0-3	.4	1.3	.5	.4	1.0	.6	1.3	.7	.0	1.0	7.3	
	4-10	1.6	1.8	1.9	1.7	3.3	4.2	3.6	2.4	.0		20.4	
	11-21	2.3	1.6	1.7	1.3	2.4	3.4	4.6	3.5	.0		20.9	
	22+	.2	1.1	.4	.1	.8	.7	1.5	.8	.0		5.6	
	TOT %	4.4	5.7	4.5	3.4	7.5	9.0	11.0	7.4	.0	1.0	54.2	
	TOT OBS												1441
	TOT PCT	9.5	11.7	7.2	7.9	13.5	17.9	19.1	11.8	.0	1.3	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	1.3	1.3	10.1	14.5	6.3	2.5	.6	.0	.0	36.5	63.5	159
06&09	.0	.6	2.6	10.4	20.1	5.2	3.9	.0	.0	.6	43.5	56.5	154
12&15	.0	.0	1.3	7.3	17.9	2.0	1.3	.0	.0	.0	29.8	70.2	151
18&21	.0	.0	.8	12.8	17.3	3.8	1.5	.8	.0	.0	36.1	63.9	133
TOT	0	3	9	60	104	26	14	1	0	1	218	379	597
PCT	.0	.5	1.5	10.1	17.4	4.4	2.3	.2	.0	.2	36.5	63.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	1.4	1.6	4.2	36.5	56.4	433
06&09	.9	3.2	6.8	15.0	28.4	46.1	380
12&15	.0	.9	.3	2.8	37.3	58.6	324
18&21	.0	.6	2.3	5.2	35.9	56.0	343
TOT	2	23	42	102	510	801	1480
PCT	.1	1.6	2.8	6.9	34.5	54.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <900YD	<600 <1	<2000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	3.8	15.9	22.9	61.1	157
06&09	.0	3.3	15.7	30.1	54.2	153
12&15	.0	1.5	10.4	23.7	65.9	135
18&21	.0	.8	14.8	22.7	62.5	128
TOT	0	14	82	143	348	573
PCT	.0	2.4	14.3	25.0	60.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
70/74	.2	.0	.0	.0	.1	.1	.0	.0	4	.3
65/69	.0	.0	.2	.8	.6	.6	.1	.0	29	2.3
60/64	.0	.1	.5	.8	2.1	3.5	5.5	4.2	209	16.7
55/59	.0	.2	.2	1.8	6.2	15.1	18.5	11.8	672	53.8
50/54	.0	.0	.1	.8	3.4	4.8	7.7	7.3	300	24.0
45/49	.0	.0	.2	.4	.3	.0	.4	1.3	32	2.6
40/44	.0	.0	.0	.0	.0	.0	.0	.2	2	.2
TOTAL	2	3	15	58	158	302	402	309	1249	100.0
PCT	.2	.2	1.2	4.6	12.7	24.2	32.2	24.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.1	*	.0	.0
.1	*	.2	.0	.0	.0	.1	.0	.0	.0
.3	.3	.0	.0	.3	.4	.6	.5	.0	.0
3.2	2.9	.8	.3	1.6	1.2	3.1	3.7	.0	.1
5.8	5.4	5.1	4.0	6.2	8.4	10.0	7.6	.0	1.1
1.1	1.8	2.3	2.7	4.7	5.1	3.9	1.6	.0	.7
*	.8	.2	.3	.8	.4	.4	*	.0	.3
.0	.0	.0	*	.1	.0	.1	.0	.0	.0
10.5	10.4	8.6	7.3	13.8	15.5	18.1	13.5	.0	2.2

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	75	68	64	58	52	49	47	57.8	516
06&09	72	68	63	57	51	50	48	56.9	486
12&15	67	62	61	55	49	46	40	55.3	418
18&21	75	66	61	55	49	45	41	55.4	393
TOT	75	66	63	57	50	47	40	56.5	1763

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.3	10.1	15.7	26.4	27.2	20.3	78	375
06&09	.3	4.8	10.5	23.7	34.5	26.1	82	333
12&15	.6	5.5	9.2	27.8	35.2	22.3	82	273
18&21	.0	3.4	14.1	18.5	33.3	30.6	83	297
TOT	2	79	161	309	412	315	81	1278

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1873-1977

AREA 0026 AUCKLAND EAST
36.2S 175.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.9	.0	.0	8	.0	.9
11/13	.0	.0	.0	.2	.2	.2	.2	8	.0	.9
9/10	.0	.0	.1	.0	.4	.0	.0	5	.0	.5
7/8	.0	.0	.0	.3	.5	.2	.0	10	.0	1.1
6	.0	.0	.0	.6	.3	.1	.0	10	.0	1.1
5	.0	.0	.1	1.1	1.5	.1	.0	26	.1	2.7
4	.0	.0	.1	1.8	.9	.0	.0	26	.1	2.7
3	.0	.0	1.0	1.4	.8	.0	.0	29	.0	3.1
2	.0	.1	1.8	3.4	2.3	.0	.0	71	.0	7.6
1	.0	.5	1.5	3.5	1.1	.0	.0	62	.2	6.4
0	.0	.9	3.3	6.3	2.9	.0	.0	125	.0	13.4
-1	.3	.9	3.1	6.3	1.0	.0	.0	108	.0	11.6
-2	.1	.9	4.3	6.0	.8	.0	.0	112	.5	11.5
-3	.2	.8	4.9	3.6	.0	.0	.0	89	.0	9.5
-4	.0	.6	5.4	2.0	.2	.0	.0	77	.1	8.1
-5	.0	1.3	4.4	1.8	.1	.0	.0	71	.1	7.5
-6	.0	.8	2.5	.5	.0	.0	.0	35	.0	3.8
-7/-8	.2	2.5	1.8	.2	.0	.0	.0	44	.0	4.7
-9/-10	.3	.5	.2	.1	.0	.0	.0	11	.0	1.2
-11/-13	.1	.1	.3	.1	.0	.0	.0	6	.0	.6
TOTAL	12	91	325	369	128	6	2	933	11	922
PCT	1.3	9.8	34.8	39.5	13.7	.6	.2	100.0	1.2	98.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	2.0	1.0	.0	.0	.0	3.0
3-4	.0	.6	3.1	.0	.0	.0	3.7
5-6	.0	.4	1.5	.2	.2	.0	2.2
7	.2	.0	.4	.2	.0	.0	.8
8-9	.0	.0	.2	.2	.0	.0	.4
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.2	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.1	6.4	.8	.2	.0	10.7

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.2	.0	.0	.0	.0	.8
1-2	.4	1.3	.5	.0	.0	.0	2.2
3-4	.0	1.0	1.0	.0	.0	.0	2.0
5-6	.2	.0	.3	.5	.4	.0	1.4
7	.0	.0	.4	.4	.2	.0	1.0
8-9	.0	.2	.4	.6	.0	.0	1.2
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.2	.2	.0	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	2.9	2.8	1.7	.6	.0	9.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.4	.2	.0	.0	.0	.9
1-2	.4	1.6	1.0	.0	.0	.0	3.0
3-4	.2	1.5	1.5	.0	.0	.0	3.2
5-6	.0	.0	1.4	.4	.0	.0	1.8
7	.0	.0	.0	.2	.2	.0	.4
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.4	.2	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	3.4	4.2	1.0	.4	.0	10.0

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.7	.1	.0	.0	.0	.8
1-2	.4	1.2	.5	.0	.0	.0	2.1
3-4	.0	1.0	1.1	.2	.0	.0	2.3
5-6	.0	.0	1.0	.3	.0	.0	1.2
7	.0	.0	.2	.3	.1	.0	.6
8-9	.0	.0	.0	.1	.2	.0	.3
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	2.9	2.8	.9	.3	.0	7.9

PERIOD: (OVER-ALL) 1963-1977 AUGUST AREA 0026 AUCKLAND EAST 36.2S 175.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.2	.0	.0	.0	.0	1.2
1-2	.0	2.6	.8	.0	.0	.0	3.4
3-4	.0	1.4	1.1	.4	.0	.0	2.9
5-6	.0	.4	.9	.6	.0	.0	1.8
7	.0	.2	1.0	.4	.2	.0	1.7
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.4	.2	.2	.0	.8
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.8	4.4	1.5	.4	.0	12.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.4	.2	.0	.0	.0	1.6
1-2	.1	2.5	1.3	.0	.0	.0	3.9
3-4	.0	1.2	2.8	.2	.0	.0	4.2
5-6	.0	.7	1.7	.3	.0	.0	2.7
7	.0	.3	.8	.2	.0	.0	1.3
8-9	.0	.2	.1	.0	.2	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	6.2	6.9	.8	.2	.0	14.1

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.9	.0	.0	.0	.0	1.1
1-2	.5	2.4	2.1	.0	.0	.0	5.0
3-4	.4	.7	3.5	.2	.0	.0	4.8
5-6	.0	.6	1.5	1.5	.0	.0	3.5
7	.0	.0	1.3	.2	.0	.0	1.5
8-9	.0	.0	.6	.6	.0	.0	1.1
10-11	.0	.0	.2	.4	.4	.0	1.0
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	4.6	9.1	3.2	.4	.0	18.4

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.6	.0	.0	.0	.0	.6	
1-2	.5	3.2	1.5	.0	.0	.0	5.2	
3-4	.3	1.0	3.3	.0	.0	.0	4.6	
5-6	.0	.7	1.6	.5	.0	.0	2.8	
7	.0	.2	1.2	.8	.0	.0	2.3	
8-9	.0	.0	.0	.7	.0	.0	.7	
10-11	.0	.0	.0	.5	.0	.0	.5	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.7	5.7	7.6	2.7	.0	.0	16.7	98.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.1	5.7	.4	.0	.0	.0	9.2	
1-2	2.2	16.9	8.6	.0	.0	.0	27.7	
3-4	.8	8.4	17.3	1.0	.0	.0	27.5	
5-6	.2	2.6	9.8	4.1	.6	.0	17.3	
7	.2	.6	5.3	2.6	.6	.0	9.4	
8-9	.0	.4	1.4	2.2	.4	.0	4.5	
10-11	.0	.0	.2	1.6	.6	.0	2.4	
12	.0	.2	.2	.4	.0	.0	.8	
13-16	.0	.0	.6	.4	.2	.0	1.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								491
TOT PCT	6.5	34.8	43.8	12.4	2.4	.0	100.0	

PERIOD: (OVER-ALL) 1950-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.7	6.1	12.4	7.3	6.3	2.7	1.3	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	201	4
6-7	.0	2.3	5.2	6.9	4.0	2.3	3.1	.8	2.7	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	143	7
8-9	.0	.2	1.9	2.7	2.7	1.7	1.7	1.0	1.5	.6	.4	.2	.0	.0	.0	.0	.0	.0	.0	76	8
10-11	.0	.8	.2	1.7	1.5	.8	1.0	.2	1.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	39	8
12-13	.0	.0	.6	.6	.4	.8	.6	.0	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	19	9
>13	.0	.0	.0	.6	.8	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	8	8
INDET	1.9	.0	1.0	1.3	.4	.8	1.1	.0	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	38	6
TOTAL	10	49	111	110	84	47	46	12	93	5	5	2	1	0	0	0	0	0	0	524	6
PCT	3.6	9.4	21.2	21.0	16.0	9.0	8.8	2.3	6.3	1.0	1.0	.4	.2	.0	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1876-1977

AREA 0026 AUCKLAND EAST
36.1S 175.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	9.6	3.6	1.6	.0	.0	.0	.0	14.3	.9	.7	2.9	.0	1.4	.0		80.8
NE	14.1	12.0	4.8	.0	.0	.0	.0	30.8	4.1	.8	3.3	.0	.4	.0		60.5
E	21.5	8.7	5.2	.0	.0	.0	.0	35.4	3.8	.0	1.6	.0	.0	.0		59.1
SE	11.3	9.1	5.2	.0	.0	.0	.0	22.2	4.9	.4	1.7	.0	.0	.0		71.3
S	3.1	2.7	.0	.0	.0	.0	.0	5.7	.0	1.4	.4	.0	.0	.0		92.4
SW	1.7	3.4	.9	.0	.0	.0	.0	6.0	1.6	.8	1.5	.0	.8	.0		89.4
W	2.9	3.5	2.1	.0	.0	.0	.0	8.5	2.1	1.4	2.3	.0	.4	.0		85.8
NW	7.3	2.3	.9	.0	.0	.0	.0	10.4	3.0	2.3	3.2	.0	.8	.0		80.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	3.4	.0	.0	.0	.0	.0	.0	3.4	.0	1.7	.0	.0	.0	.0		94.8
TOT PCT	6.8	4.5	1.9	.0	.0	.0	.0	13.0	2.1	1.2	2.1	.0	.5	.0		81.3
TOT OBS:	1291															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.7	5.7	2.3	.0	.0	.0	.0	13.4	1.4	.0	3.4	.0	.9	.0		81.0
06&09	6.7	1.8	2.1	.0	.0	.0	.0	10.4	2.8	.9	.6	.0	.3	.0		85.0
12&15	5.1	6.6	1.8	.0	.0	.0	.0	13.3	1.5	3.3	1.2	.0	.3	.0		81.3
18&21	9.5	3.3	2.0	.0	.0	.0	.0	14.8	3.0	.7	3.3	.0	.7	.0		77.7
TOT PCT	6.7	4.4	2.1	.0	.0	.0	.0	12.9	2.1	1.2	2.1	.0	.5	.0		81.3
TOT OBS:	1315															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.7	4.2	3.8	.6	.1	.0		10.4	10.6	12.5	9.2	11.7	10.1	8.4	6.9	9.1	13.5
NE	1.2	3.1	3.6	.7	.6	.1		9.3	13.5	8.3	9.8	7.2	8.3	12.9	12.7	9.1	5.8
E	.5	2.4	2.7	1.2	.8	.1		7.7	16.9	7.3	8.7	12.2	5.5	5.3	6.5	15.4	4.8
SE	.4	2.1	1.6	.6	.1	.1		4.8	13.5	3.8	3.6	3.5	4.4	6.9	6.7	6.0	3.6
S	1.4	4.0	4.2	1.1	.1	*		10.8	11.8	10.6	10.9	9.6	9.6	13.3	12.3	9.4	9.5
SW	2.1	9.4	7.4	1.4	*	.0		20.2	10.9	16.8	20.8	18.1	25.6	24.7	21.3	13.1	19.3
W	2.0	8.6	6.7	1.2	.1	.0		18.6	11.1	19.0	21.2	18.0	16.9	14.4	21.1	20.5	21.8
NW	1.3	5.6	6.0	1.3	.1	.0		14.2	11.9	17.7	9.6	19.0	14.3	11.3	7.8	15.4	15.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.0							4.0	.0	4.1	6.3	.7	5.4	2.8	4.5	2.0	6.1
TOT OBS	227	616	561	125	30	6	1565		11.5	317	112	149	221	284	134	151	197
TOT PCT	14.5	39.4	35.8	8.0	1.9	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.8	5.0	1.2	.4	.1		10.4	10.6	11.7	10.7	7.9	11.6
NE	2.7	4.2	1.3	.6	.4		9.3	13.5	8.7	7.8	12.9	7.3
E	1.1	3.3	1.9	.9	.4		7.7	16.9	7.6	8.2	5.7	9.4
SE	1.3	2.2	1.0	.2	.2		4.8	13.5	3.7	4.1	6.8	4.6
S	2.8	5.5	2.0	.4	*		10.8	11.8	10.7	9.6	13.0	9.5
SW	5.8	10.4	3.8	.2	.0		20.2	10.9	17.8	22.6	23.7	16.6
W	4.9	9.9	3.2	.6	.0		18.6	11.1	19.6	17.3	16.6	21.3
NW	4.2	6.6	2.8	.6	.0		14.2	11.9	15.6	16.1	10.2	15.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.0						4.0	.0	4.7	3.5	3.3	4.3
TOT OBS	478	737	270	62	18	1565		11.5	429	370	418	348
TOT PCT	30.5	47.1	17.3	4.0	1.2		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.7	10.3	36.4	36.6	10.3	1.9	.0	11.8	100.0	629
06&09	3.5	11.1	41.4	35.7	6.5	1.9	.0	11.2	100.0	370
12&15	3.3	7.4	39.2	39.7	7.2	1.9	1.2	12.2	100.0	418
18&21	4.3	14.1	41.1	30.5	7.8	2.0	.3	10.8	100.0	348
TOT	62	165	616	561	125	30	6	11.5		1365
PCT	4.0	10.5	39.4	35.8	8.0	1.9	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.2	2.4	2.6	3.9		5.0
NE	1.6	.5	2.4	4.7		6.1
E	.9	.7	2.8	5.8		6.6
SE	1.1	.7	2.1	1.8		5.6
S	2.9	2.2	3.5	1.0		4.3
SW	6.7	3.8	5.0	1.0		3.5
W	6.7	5.2	6.4	.8		3.7
NW	4.0	4.5	6.2	2.9		4.5
VAR	.0	.0	.0	.0		.0
CALM	1.3	.0	.7	.0		2.6
TOT OBS	147	107	170	111	535	4.6
TOT PCT	27.5	20.0	31.8	20.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.0	.5	1.5	1.5	.3	.0	.0	.0	.0	6.6	
NE	.0	.2	.7	2.5	2.2	.2	.0	.0	.0	*	3.4	
E	.0	.0	1.4	2.2	3.0	.6	.0	.0	.0	.1	2.9	
SE	.0	.4	.4	.9	1.0	.3	.0	.0	.0	.0	2.7	
S	.0	.0	.4	.6	1.3	.8	.0	.1	.0	.0	6.5	
SW	.0	.0	.2	.6	1.3	1.6	.0	.1	.0	.0	12.6	
W	.0	.0	.0	1.0	2.0	1.3	.3	.0	.0	.2	14.4	
NW	.0	.0	.6	1.6	1.7	.9	.6	.0	.0	.0	11.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	1.7	
TOT OBS	1	3	22	59	76	33	5	1	0	2	333	535
TOT PCT	.2	.6	4.1	11.0	14.2	6.2	.9	.2	.0	.4	62.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.2	.4	.4	.4	.4	.4	.4	.4
* OR >5000	.4	.5	.5	.5	.5	.5	.5	.5
* OR >3500	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5
* OR >2000	5.8	7.3	7.5	7.5	7.5	7.5	7.5	7.5
* OR >1000	15.5	20.1	21.2	21.4	21.4	21.4	21.4	21.4
* OR >600	21.7	29.6	32.5	32.7	32.7	32.7	32.7	32.7
* OR >300	22.4	31.4	36.3	36.5	36.7	36.7	36.7	36.7
* OR >150	22.4	31.6	36.9	37.0	37.2	37.2	37.2	37.2
* OR > 0	22.4	31.6	37.0	37.2	37.4	37.4	37.4	37.4
TOTAL	123	173	203	204	205	205	205	205

TOTAL NUMBER OF OBS: 548

PCT FREQ NH <5/8: 62.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
6.6	19.1	16.7	10.4	10.2	7.7	8.9	9.7	15.2	.2	598

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2	
1/2<1	PCP	.1	.0	.0	.1	.1	.0	.2	.1	.0	.0	.5	
	NO PCP	.1	.2	.0	.0	.0	.1	.2	.2	.0	.0	.7	
	TOT %	.2	.2	.0	.1	.1	.1	.3	.3	.0	.0	1.2	
1<2	PCP	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	*	*	.0	.0	.0	.0	.0	.1	.0	.1	.2	
	TOT %	*	.2	.1	.0	.0	.0	.0	.1	.0	.1	.5	
2<5	PCP	.5	.6	.9	.2	.1	.0	.0	.2	.0	.0	2.4	
	NO PCP	.3	.5	.4	.1	.2	.1	.3	.1	.0	.0	2.0	
	TOT %	.8	1.1	1.3	.3	.3	.1	.3	.3	.0	.0	4.4	
5<10	PCP	.6	1.7	1.3	.6	.3	.6	1.2	.3	.0	.1	6.6	
	NO PCP	3.1	2.7	1.4	.8	2.1	7.2	4.4	3.8	.0	2.4	27.9	
	TOT %	3.7	4.4	2.7	1.4	2.4	7.7	5.6	4.1	.0	2.5	34.4	
10+	PCP	.3	.4	.3	.1	.2	.6	.3	1.0	.0	.1	3.2	
	NO PCP	5.7	3.0	2.8	2.6	6.7	11.8	12.5	9.2	.0	1.9	56.2	
	TOT %	5.9	3.5	3.1	2.7	6.8	12.4	12.8	10.2	.0	1.9	59.3	
	TOT OBS												1289
	TOT PCT	10.7	9.3	7.1	4.5	9.3	20.4	19.0	15.0	.0	4.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.1	.0	.0	.0	.0	.1	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	*	.0	.0	.0	.1	.0	.0	.0	.0	.2	
1/2<1	0-3	.1	.0	.0	.0	.0	.2	.0	*	.0	.0	.2	
	4-10	*	.1	.0	.0	.0	.0	.3	.2	.0		.6	
	11-21	.1	.2	.0	.0	.1	.1	.1	.1	.0		.5	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0		.1	
	TOT %	.2	.2	.0	.1	.1	.2	.4	.3	.0	.0	1.4	
1<2	0-3	.1	.0	.0	.1	.1	*	.1	.0	.0	.1	.5	
	4-10	*	*	.0	.0	.1	.1	.1	.0	.0		.3	
	11-21	.1	.2	.0	.0	.0	.0	.0	.1	.0		.3	
	22+	.0	.1	.1	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.2	.3	.1	.1	.2	.1	.2	.1	.0	.1	1.2	
2<5	0-3	.1	.1	.0	.0	.1	.1	.1	*	.0	.0	.5	
	4-10	.2	.1	.0	.1	.1	.0	.2	.1	.0		.8	
	11-21	.2	.3	.4	.2	.1	*	.0	.2	.0		1.4	
	22+	.2	.6	.8	*	.0	.0	.0	.0	.0		1.6	
	TOT %	.8	1.1	1.2	.3	.2	.1	.3	.3	.0	.0	4.3	
5<10	0-3	1.0	.5	.2	*	.5	.7	.8	.6	.0	2.4	6.7	
	4-10	1.3	1.4	.8	.3	.7	4.4	2.1	1.4	.0		12.2	
	11-21	1.0	1.5	.8	.5	.8	2.1	2.2	1.6	.0		10.5	
	22+	.3	.8	.8	.5	.4	.4	.4	.4	.0		4.1	
	TOT %	3.6	4.2	2.6	1.3	2.3	7.5	5.5	4.0	.0	2.4	33.5	
10+	0-3	.7	.5	.2	.3	.9	1.4	1.2	1.0	.0	1.9	8.0	
	4-10	2.8	1.5	1.5	1.3	2.5	5.0	5.9	4.1	.0		24.7	
	11-21	2.2	1.5	1.2	.8	3.1	5.2	4.5	4.1	.0		22.6	
	22+	.2	*	.3	.2	.6	.8	1.0	.8	.0		4.0	
	TOT %	5.9	3.5	3.2	2.7	7.2	12.5	12.5	10.0	.0	1.9	59.3	
	TOT OBS												1925
	TOT PCT	10.8	9.4	7.1	4.4	10.0	20.5	18.8	14.6	.0	4.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	3.1	10.9	14.7	3.1	1.6	.8	.0	.0	34.1	65.9	129
06&09	.0	1.2	4.3	11.1	9.3	4.3	.6	.0	.0	.6	31.5	68.5	162
12&15	.7	.7	4.2	7.7	12.7	4.2	.7	.0	.0	.7	31.7	68.3	142
18&21	.0	.0	3.4	13.0	17.1	11.0	.7	.0	.0	.0	45.2	54.8	146
TOT	1	3	22	62	77	32	5	1	0	2	206	373	579
PCT	.2	.5	3.8	10.7	13.3	5.7	.9	.2	.0	.3	35.6	64.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	1.4	.8	4.5	33.4	59.6	359
06&09	.0	1.2	2.4	5.3	34.1	57.1	340
12&15	.0	1.8	.9	2.6	37.5	57.2	341
18&21	.6	1.3	.4	4.5	27.2	65.7	309
TOT	3	19	16	57	448	806	1349
PCT	.2	1.4	1.2	4.2	33.2	59.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	3.3	16.7	20.0	63.3	120
06&09	.0	5.8	18.8	14.3	66.9	154
12&15	.7	5.9	14.1	18.5	67.4	135
18&21	.0	3.6	19.4	28.1	52.5	139
TOT	1	26	95	110	363	548
PCT	.2	4.7	17.3	20.1	62.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.2	.0	.0	.0	.0	.0	2	.2
70/74	.0	.0	.3	.4	.0	.0	.1	.0	8	.7
65/69	.0	.0	.1	.9	.5	.4	.5	.4	29	2.7
60/64	.0	.0	.2	1.9	9.8	5.3	6.5	9.9	290	27.1
55/59	.0	.2	.3	1.4	9.6	15.7	15.0	13.9	579	54.1
50/54	.0	.0	.1	.6	2.3	4.7	4.6	2.1	153	14.3
45/49	.0	.0	.0	.0	.0	.4	.5	.1	10	.9
TOTAL	0	2	12	49	152	283	291	282	1071	100.0
PCT	.0	.2	1.1	4.6	14.2	26.4	27.2	26.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.1	.1	.0	.0	.0
.0	.0	.0	.0	.2	.2	.1	.3	.0	.0
.6	.2	.0	.1	.2	.3	.7	.6	.0	.1
5.1	3.0	1.4	1.1	2.2	2.6	4.2	6.5	.0	1.0
4.6	6.1	5.9	3.2	5.3	10.7	10.4	6.2	.0	1.8
.5	.2	.4	.3	2.6	4.8	3.8	1.1	.0	.6
.1	.0	.0	.0	.5	.3	.1	.0	.0	.0
10.8	9.6	7.7	4.6	11.0	18.9	19.3	14.7	.0	3.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	81	73	67	59	54	47	46	59.7	490
06&09	67	65	63	58	54	52	49	58.1	374
12&15	67	63	61	57	52	48	48	56.5	419
18&21	79	67	63	57	52	48	48	57.3	290
TOT	81	68	64	58	52	49	46	57.9	1573

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	10.0	17.6	26.6	27.2	18.6	77	301
06&09	.0	3.9	11.1	28.3	29.1	31.5	82	279
12&15	.0	2.3	13.7	26.8	33.7	21.5	81	261
18&21	.0	6.3	11.5	33.8	24.2	24.1	82	252
TOT	0	63	154	289	301	206	80	1093

SEPTEMBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1876-1977

AREA 0026 AUCKLAND EAST
36.15 175.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
14/16	.0	.0	.0	.0	.2	.0	.0	.0	.0	2	.0	.2
11/13	.0	.0	.0	.2	.2	.1	.0	.0	.0	5	.0	.5
9/10	.0	.0	.0	.3	.2	.0	.1	.0	.0	6	.0	.6
7/8	.0	.0	.1	.3	.5	.3	.0	.0	.0	12	.0	1.3
6	.0	.0	.1	.1	.1	.1	.0	.0	.0	4	.0	.4
5	.0	.0	.4	.8	1.2	.1	.0	.0	.0	23	.0	2.5
4	.0	.0	.4	.6	2.3	.2	.0	.0	.0	33	.1	3.5
3	.0	.0	.2	2.9	2.5	.2	.0	.0	.0	54	.2	5.6
2	.0	.0	.4	5.1	3.2	.1	.0	.0	.0	82	.3	8.5
1	.0	.0	.8	7.1	3.4	.0	.0	.0	.0	104	.6	10.6
0	.0	.1	2.4	8.7	2.6	.1	.0	.0	.0	128	.4	13.4
-1	.0	.0	3.0	8.9	1.3	.0	.0	.0	.0	122	.1	13.1
-2	.0	.3	4.2	6.4	.5	.0	.0	.0	.0	106	.4	11.0
-3	.0	.6	5.6	2.9	.9	.0	.0	.0	.0	93	.2	9.8
-4	.0	.5	3.4	3.0	.0	.0	.0	.0	.0	64	.0	6.9
-5	.4	.9	1.9	.6	.1	.0	.0	.0	.0	37	.2	3.8
-6	.1	.4	1.0	.3	.0	.0	.0	.0	.0	17	.0	1.8
-7/-8	.1	.8	1.2	.5	.1	.0	.0	.0	.0	25	.1	2.6
-9/-10	.0	.0	.2	.1	.0	.0	.0	.0	.0	3	.0	.3
-11/-13	.2	.1	.0	.0	.0	.0	.0	.0	.0	3	.0	.3
TOTAL	8	35	235	453	179	12	1	0	1	924	26	898
PCT	.9	3.8	25.4	49.0	19.4	1.3	.1	.0	.1	100.0	2.8	97.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.4	.0	.0	.0	.0	.8
1-2	.2	3.1	.3	.0	.0	.0	3.6
3-4	.2	1.1	2.1	.0	.0	.0	3.4
5-6	.0	.0	1.2	.4	.2	.0	1.8
7	.0	.2	.4	.4	.0	.0	.9
8-9	.0	.0	.2	.4	.0	.0	.6
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.2	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.7	4.2	1.3	.4	.0	11.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.1	1.3	1.2	.0	.0	.0	2.6
3-4	.0	.7	2.0	.0	.0	.0	2.7
5-6	.0	.2	.9	.2	.0	.0	1.3
7	.0	.0	.5	.1	.2	.0	.8
8-9	.0	.0	.2	.0	.2	.0	.4
10-11	.0	.0	.0	.0	.2	.0	.7
12	.0	.0	.0	.0	.2	.0	.2
13-16	.0	.0	.0	.1	.0	.0	.2
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.2	.2
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.6	5.0	.8	.9	.2	9.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	2.1	.4	.0	.0	.0	2.5
3-4	.0	1.0	1.5	.0	.0	.0	2.5
5-6	.0	.2	.9	.4	.0	.0	1.5
7	.0	.0	.6	1.4	.6	.0	2.6
8-9	.0	.0	.2	.0	.0	.2	.4
10-11	.0	.0	.0	.2	.2	.0	.4
12	.0	.0	.0	.0	.2	.2	.4
13-16	.0	.0	.3	.0	.2	.0	.5
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.4	.0	.4
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.2	.0	.2
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.4	4.0	2.2	1.7	.4	11.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	.0	.0	.0	.0	.1
1-2	.2	1.3	.7	.0	.0	.0	2.2
3-4	.0	.3	1.4	.0	.0	.0	1.8
5-6	.0	.0	.8	.1	.0	.0	.8
7	.0	.0	.0	.0	.2	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.1	.0	.1
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.2	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.8	2.8	.3	.3	.2	5.6

PERIOD: (OVER-ALL) 1963-1977 SEPTEMBER AREA 0026 AUCKLAND EAST

TABLE 18 (CONT) 36.1S 175.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.3	.0	.0	.0	.0	.5
1-2	.2	.8	.7	.0	.0	.0	1.7
3-4	.0	.8	2.6	.0	.0	.0	3.4
5-6	.0	.2	.7	.9	.0	.0	1.8
7	.0	.0	.4	.2	.0	.0	.5
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.2	.0	.0	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.2	4.8	1.2	.2	.0	8.7

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.3	.0	.0	.0	.0	1.5
1-2	.3	2.3	1.6	.0	.0	.0	4.2
3-4	.0	1.6	4.4	.7	.0	.0	6.6
5-6	.0	.0	1.6	.7	.0	.0	2.3
7	.0	.0	.7	.1	.0	.0	.7
8-9	.0	.0	.0	.0	.1	.0	.1
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.2	8.2	1.7	.1	.0	15.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6
1-2	.2	3.6	2.1	.0	.0	.0	6.0
3-4	.0	2.5	4.2	.4	.0	.0	7.0
5-6	.0	.4	2.6	.4	.2	.0	3.5
7	.0	.0	.8	.2	.0	.0	1.0
8-9	.0	.0	.2	.3	.2	.0	.7
10-11	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.2	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	6.9	10.0	1.6	.4	.0	19.2

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.1	.0	.0	.0	.0	.5	
1-2	.2	3.1	2.8	.0	.0	.0	6.1	
3-4	.0	2.2	3.0	.0	.0	.0	5.1	
5-6	.0	.3	1.1	.7	.0	.0	2.1	
7	.0	.1	.9	.5	.0	.0	1.4	
8-9	.0	.0	.2	.6	.0	.0	.8	
10-11	.0	.0	.0	.2	.0	.0	.2	
12	.0	.0	.1	.2	.0	.0	.3	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.2	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	5.6	8.1	2.1	.2	.0	16.4	98.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.9	3.0	.0	.0	.0	.0	6.9	
1-2	1.2	17.5	9.8	.0	.0	.0	28.5	
3-4	.2	10.2	20.9	1.0	.0	.0	32.3	
5-6	.0	1.2	9.8	3.7	.4	.0	15.0	
7	.0	.2	4.3	2.6	1.0	.0	8.1	
8-9	.0	.0	1.2	1.2	.4	.2	3.0	
10-11	.0	.0	.0	1.6	.4	.0	2.0	
12	.0	.0	.2	.4	.4	.2	1.2	
13-16	.0	.0	.4	.2	.4	.0	1.0	
17-19	.0	.0	.0	.2	.2	.2	.6	
20-22	.0	.0	.0	.0	.4	.0	.4	
23-25	.0	.0	.2	.0	.2	.0	.4	
26-32	.0	.0	.0	.0	.2	.0	.2	
33-40	.0	.0	.0	.0	.0	.2	.2	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								492
TOT PCT	5.8	32.1	46.7	11.0	4.1	.8	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	7.0	16.8	10.6	6.3	1.9	.4	.6	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	225	4
6-7	.0	.4	5.9	6.3	4.2	2.1	2.3	1.3	2.7	.4	.6	.2	.2	.0	.0	.0	.0	.0	.0	140	7
8-9	.0	.8	2.3	1.9	1.5	2.1	1.3	.8	.4	.2	.4	.4	.4	.2	.0	.0	.0	.0	.0	65	8
10-11	.0	.2	.8	1.3	.2	1.3	.4	.8	.8	.2	.0	.0	.4	.2	.0	.0	.0	.0	.0	35	10
12-15	.0	.0	2.1	.4	.8	.2	.4	.4	.2	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	26	8
>12	.0	.0	.0	.8	.2	.0	.0	.0	.0	.0	.0	.4	.6	.4	.0	.0	.0	.0	.0	12	19
INDET	1.3	.6	.8	.9	.4	.2	.0	.0	.4	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	25	4
TOTAL	10	47	140	119	71	41	26	20	23	6	6	6	9	4	0	0	0	0	0	528	7
PCT	1.9	8.9	26.5	22.5	13.4	7.8	4.9	3.8	4.4	1.1	1.1	1.1	1.7	.8	.0	.0	.0	.0	.0	100.0	

OCTOBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1857-1977

AREA 0026 AUCKLAND EAST
36.1S 175.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	11.5	2.0	6.7	.0	.0	.0	.6	20.9	2.2	.0	1.2	.0	1.6		.6	73.4
NE	10.4	3.6	4.6	.0	.0	.0	.0	18.6	2.9	1.9	1.2	.0	1.0		.2	75.1
E	10.9	8.3	9.0	.0	.0	.0	.0	28.3	1.9	.0	1.7	.0	1.0		1.4	65.8
SE	6.5	3.7	3.4	.0	.0	.0	.0	13.7	2.9	.0	.0	.0	.0		.4	83.2
S	6.5	2.0	1.8	.0	.0	.0	.0	10.3	1.0	1.0	2.0	.0	.0		.0	85.7
SW	.7	4.1	.4	.0	.0	.0	.0	5.3	.9	.0	2.2	.0	.9		.0	90.7
W	1.1	3.2	2.4	.0	.0	.0	.3	7.0	.9	.4	2.6	.0	1.0		.0	88.0
NW	2.9	4.3	2.0	.0	.0	.0	.3	9.4	1.9	.6	4.3	.0	2.7		.0	81.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	5.2	.0	.0	.0	.0	.0	.0	5.2	.0	1.7	.0	.0	5.2		.0	87.9
TOT PCT	5.0	3.7	3.1	.0	.0	.0	.2	12.0	1.5	.5	2.1	.0	1.3		.3	82.4
TOT OBS:	1194															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	4.8	3.6	2.4	.0	.0	.0	.6	11.4	1.8	.0	3.6	.0	2.1		.9	80.2
06&09	4.3	3.0	3.0	.0	.0	.0	.0	10.4	.7	.7	2.0	.0	1.3		.0	84.9
12&15	6.3	6.0	1.6	.0	.0	.0	.0	13.9	1.9	1.3	1.6	.0	.6		.0	81.0
18&21	4.2	1.8	5.3	.0	.0	.0	.0	11.2	1.4	.0	1.1	.0	1.1		.0	85.3
TOT PCT	4.9	3.6	3.0	.0	.0	.0	.2	11.8	1.5	.5	2.1	.0	1.3		.2	82.7
TOT OBS:	1234															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.5	5.3	3.8	.5	.1	.0		11.1	10.2	12.3	20.2	10.0	11.7	8.8	12.7	5.4	11.6
NE	1.1	5.1	2.6	.2	.1	.1		9.2	10.1	10.9	7.3	11.7	10.8	6.7	8.0	5.8	10.6
E	.6	3.3	2.9	1.7	.5	.0		8.8	14.7	8.2	6.1	12.6	9.4	11.7	5.8	14.2	6.2
SE	1.2	2.8	1.5	.4	.6	.0		6.6	12.3	8.4	1.8	6.6	2.9	7.6	5.8	8.1	7.7
S	1.0	3.6	2.9	.9	.0	.0		8.4	11.3	7.9	7.6	8.8	5.4	6.9	12.5	10.1	11.5
SW	1.5	8.2	6.4	1.5	.1	.0		17.6	11.5	15.0	19.7	8.3	23.9	17.0	26.3	14.7	19.4
W	1.3	7.6	6.7	3.5	.5	.0		19.7	14.1	15.7	17.7	22.4	22.1	22.0	18.1	23.2	17.6
NW	1.3	6.2	5.3	1.2	.1	.0		14.1	11.5	18.0	16.7	17.6	12.1	14.1	6.5	16.4	8.8
VAR	.0	.0	.6	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.7							4.7	.0	3.7	3.0	2.1	7.7	5.2	4.3	2.2	7.3
TOT OBS	208	622	469	149	29	1	1474		11.5	299	99	145	196	289	116	139	191
TOT PCT	14.1	42.2	31.8	9.8	2.0	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.9	5.5	1.3	.4	.0		11.1	10.2	14.3	11.0	9.9	9.0
NE	3.3	4.5	1.1	.2	.1		9.2	10.1	10.0	11.2	7.1	8.6
E	2.2	3.1	2.2	1.1	.1		8.6	14.7	7.7	7.3	10.0	9.5
SE	2.3	2.8	.7	.7	.1		6.6	12.3	6.7	4.5	7.1	7.9
S	2.5	4.0	1.7	.2	.0		8.4	11.3	7.9	6.8	8.5	10.4
SW	5.3	8.1	3.4	.8	.0		17.6	11.5	16.1	17.2	19.6	17.4
W	4.4	8.6	4.3	2.4	.0		19.7	14.1	16.2	22.2	20.9	19.8
NW	3.9	7.0	2.5	.6	.0		14.1	11.5	17.7	14.4	11.9	12.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.7						4.7	.0	3.3	3.3	4.9	5.2
TOT OBS	478	643	257	93	3	1474		11.5	298	341	405	390
TOT PCT	32.4	43.6	17.4	6.3	.2		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.5	10.6	42.0	31.7	10.1	2.3	.0	11.5	100.0	398
06&09	5.3	10.6	39.6	33.1	8.8	2.6	.0	11.4	100.0	341
12&15	4.9	5.9	45.4	31.6	10.6	1.2	.2	11.7	100.0	405
18&21	5.2	11.2	41.2	30.9	9.7	1.8	.0	11.3	100.0	330
TOT	69	139	622	469	145	29	1	11.5		1474
PCT	4.7	9.4	42.2	31.8	9.8	2.0	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.9	1.6	2.8	2.9		5.1
NE	1.1	1.0	3.2	2.1		5.7
E	1.4	1.4	3.0	5.9		6.2
SE	.9	1.9	2.8	2.7		5.5
S	2.8	1.9	2.4	2.4		4.7
SW	7.2	2.6	2.9	1.5		3.2
W	5.6	4.7	7.6	2.8		4.3
NW	3.5	3.6	6.0	3.8		4.9
VAR	.0	.0	.0	.0		.0
CALM	.9	.8	.6	.0		2.8
TOT OBS	134	103	166	128	531	4.7
TOT PCT	25.2	19.4	31.3	24.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.1	.0	.3	1.8	.8	.7	.1	.2	.0	.0	5.1	
NE	.0	.0	.4	1.4	2.1	.6	.0	.0	.0	.0	3.0	
E	.2	.2	.9	2.0	2.4	1.4	.0	.0	.0	.4	4.1	
SE	.0	.0	.1	1.7	1.3	.8	.2	.0	.0	.0	4.2	
S	.2	.0	.3	1.1	1.2	.5	.2	.0	.0	.0	4.1	
SW	.0	.0	.0	.5	.9	.8	.4	.2	.0	.2	11.1	
W	.0	.0	.2	1.5	2.7	1.2	.1	.3	.2	.3	14.1	
NW	*	.0	.4	.9	3.0	.9	.3	.2	.0	.3	10.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	1.9	
TOT OBS	9	1	14	60	76	37	7	5	1	7	320	531
TOT PCT	.6	.2	2.6	11.3	14.3	7.0	1.3	.9	.2	1.3	60.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >30YD	* OR >0
* OR >6500	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
* OR >5000	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
* OR >3500	3.6	3.8	4.0	4.0	4.0	4.0	4.0	4.0
* OR >2000	9.5	10.6	10.8	10.8	10.8	10.8	10.8	10.8
* OR >1000	19.3	24.0	24.7	24.9	24.9	24.9	24.9	24.9
* OR >600	24.3	33.0	35.0	35.9	36.4	36.4	36.4	36.4
* OR >300	25.0	34.6	37.1	38.0	38.9	38.9	38.9	38.9
* OR >150	25.2	34.8	37.3	38.2	39.1	39.1	39.1	39.1
* OR > 0	25.2	34.8	37.5	38.7	39.6	39.6	39.6	39.6
TOTAL	140	193	208	215	220	220	220	220

TOTAL NUMBER OF OBS: 555 PCT FREQ NH <5/8: 60.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
9.1	16.2	15.3	12.9	6.6	7.6	6.7	7.1	18.3	.2	580

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TABLE 8

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PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	NO PCP	.0	.1	.0	.0	.0	.0	*	*	.0	.0	.2	
	TOT %	.0	.1	.0	.0	.0	.0	*	*	.0	.1	.3	
1/2<1	PCP	.4	.0	.5	.2	.1	.0	.0	.0	.0	.1	1.3	
	NO PCP	.1	.1	.0	.0	.1	.2	.1	.5	.0	.0	1.1	
	TOT %	.5	.1	.5	.2	.3	.2	.1	.5	.0	.1	2.4	
1<2	PCP	.2	.1	.3	.1	.1	*	.1	*	.0	.0	.9	
	NO PCP	.2	*	.1	.0	.0	.0	.1	.2	.0	.0	.6	
	TOT %	.4	.1	.3	.1	.1	*	.2	.2	.0	.0	1.5	
2<5	PCP	.4	.1	.6	.1	.1	*	.2	.1	.0	.0	1.7	
	NO PCP	.1	.0	.4	.1	.1	.4	.3	.1	.0	.0	1.5	
	TOT %	.5	.1	1.0	.1	.2	.4	.5	.2	.0	.0	3.2	
5<10	PCP	.6	1.2	.8	.5	.4	.9	.7	1.0	.0	.0	6.0	
	NO PCP	2.9	2.0	1.4	1.0	1.8	6.8	4.1	4.0	.0	2.2	26.2	
	TOT %	3.6	3.2	2.2	1.5	2.2	7.7	4.8	4.9	.0	2.2	32.2	
10+	PCP	.4	.2	.4	.1	.1	.1	.3	.3	.0	.1	1.9	
	NO PCP	4.8	4.9	4.4	4.7	5.4	10.3	13.0	8.5	.0	2.4	58.5	
	TOT %	5.2	5.1	4.8	4.8	5.5	10.3	13.3	8.8	.0	2.5	60.4	
	TOT OBS												1194
	TOT PCT	10.2	8.7	8.8	6.7	8.6	18.7	19.0	14.6	.0	4.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.1	.0	.0	.0	.0	*	*	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.1	.0	.0	.0	.0	*	*	.0	.1	.2	
1/2<1	0-3	.1	.0	.0	.0	.0	.1	.0	.0	.0	.1	.2	
	4-10	.3	.1	.0	.1	.1	.1	.0	.2	.0		1.0	
	11-21	.1	.0	.0	*	.1	.0	.0	.2	.0		.4	
	22+	.1	.0	.5	.1	.1	.0	.1	.0	.0		.8	
	TOT %	.6	.1	.5	.2	.2	.2	.1	.5	.0	.1	2.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.1	.1	.0	*	.2	.2	.0		.7	
	11-21	.2	.1	.2	.0	.1	*	*	.1	.0		.7	
	22+	.1	*	.1	.0	.1	.0	.0	*	.0		.2	
	TOT %	.4	.1	.3	.1	.1	*	.3	.3	.0	.0	1.6	
2<5	0-3	.0	.0	.1	*	.0	.0	.0	.0	.0	.0	.1	
	4-10	.1	.1	.1	.0	.2	.3	.3	.1	.0		1.2	
	11-21	.4	*	.2	.0	.0	.1	.1	.1	.0		.9	
	22+	.0	.0	.6	.1	.0	.0	.2	.0	.0		.9	
	TOT %	.5	.1	1.0	.1	.2	.4	.5	.2	.0	.0	3.1	
5<10	0-3	.6	.2	.2	.3	.4	.6	.5	.4	.0	2.1	5.3	
	4-10	1.7	1.5	.6	.6	1.1	4.0	2.0	2.4	.0		13.8	
	11-21	1.1	1.3	.6	.3	.6	2.3	1.0	1.4	.0		8.6	
	22+	.1	.2	.8	.3	.1	.6	1.2	.7	.0		4.1	
	TOT %	3.5	3.2	2.1	1.4	2.2	7.6	4.8	4.8	.0	2.1	31.8	
10+	0-3	.9	1.2	.5	.9	.6	1.0	1.0	1.0	.0	2.5	9.5	
	4-10	2.8	3.3	2.3	2.2	2.2	4.5	5.0	3.6	.0		26.0	
	11-21	1.6	.6	1.6	1.4	2.1	3.9	5.2	3.6	.0		19.8	
	22+	.2	.1	.4	.3	.7	1.0	2.0	.6	.0		5.4	
	TOT %	5.8	5.2	4.8	5.0	5.6	10.4	13.2	8.8	.0	2.5	60.7	
	TOT OBS												1213
	TOT PCT	10.6	8.7	8.8	6.9	8.4	18.6	18.9	14.6	.0	4.8	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.4	.7	2.9	9.4	13.7	3.6	3.6	1.4	.0	2.2	38.8	61.2	139
06&09	.0	.0	.7	8.3	13.9	11.1	.0	1.4	.7	1.4	37.5	62.5	144
12&15	.7	.0	2.1	10.3	13.1	4.8	.7	.0	.0	1.4	33.1	66.9	145
18&21	.0	.0	4.3	17.0	14.2	7.1	1.4	.7	.0	.7	65.4	34.6	141
TOT	3	1	14	64	78	38	8	5	1	8	220	349	569
PCT	.5	.2	2.5	11.2	13.7	6.7	1.4	.9	.2	1.4	38.7	61.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	3.2	1.8	1.8	32.2	60.8	339
06&09	.7	1.7	2.6	5.3	34.0	56.4	303
12&15	.0	3.1	2.5	1.9	34.6	58.0	324
18&21	.0	1.4	.7	3.8	25.4	68.6	287
TOT	3	30	22	39	397	762	1253
PCT	.2	2.4	1.8	3.1	31.7	60.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.5	6.7	17.0	23.0	60.0	135
06&09	.0	1.4	11.3	28.2	60.6	142
12&15	.7	3.6	15.1	20.1	64.7	139
18&21	.0	4.3	21.6	24.5	54.0	139
TOT	3	22	90	133	332	555
PCT	.5	4.0	16.2	24.0	59.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
70/74	.0	.0	.0	.1	.2	.1	.0	.9	13	1.2
65/69	.0	.0	.0	.5	.6	1.2	2.1	3.6	82	7.9
60/64	.0	.0	.0	.7	4.4	8.7	16.0	14.5	462	44.4
55/59	.0	.0	.1	1.3	5.0	10.5	12.8	10.8	421	40.4
50/54	.0	.0	.0	.2	1.1	1.9	1.2	1.5	62	6.0
TOTAL	0	0	1	29	117	233	335	326	1041	100.0
PCT	.0	.0	.1	2.8	11.2	22.4	32.2	31.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
.5	.2	.0	.1	.0	.0	.1	.3	.0	.0
1.7	.9	.5	.3	.4	.8	.7	1.7	.0	.9
6.7	5.6	4.5	2.2	2.9	4.5	8.8	7.9	.0	1.2
1.6	2.4	3.2	3.8	4.6	9.0	9.6	4.6	.0	1.5
.2	.1	.5	.6	.9	2.0	1.2	.4	.0	.0
10.7	9.4	8.6	7.0	8.9	16.2	20.6	14.9	.0	3.7

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	75	73	67	62	56	53	51	61.7	405
06&09	72	70	66	60	55	53	52	60.1	367
12&15	69	64	63	58	55	50	48	58.2	408
18&21	73	70	64	59	54	51	50	59.0	336
TOT	75	69	65	60	54	51	48	59.8	1496

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.9	15.5	24.6	31.7	24.3	80	284
06&09	.0	3.8	11.5	22.1	29.0	33.6	83	262
12&15	.0	2.2	7.5	20.5	36.9	32.8	84	268
18&21	.0	1.5	10.3	22.2	30.3	35.6	84	261
TOT	0	31	121	241	344	338	83	1075

OCTOBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1857-1977

AREA 0026 AUCKLAND EAST
36.1S 175.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.1	.0	.0	.1	2	.0	.2
9/10	.0	.0	.0	.1	.0	.1	.2	.1	5	.0	.6
7/8	.0	.0	.1	.1	.1	1.4	.0	.0	15	.0	1.7
6	.0	.0	.0	.2	.3	.2	.1	.0	8	.0	.9
5	.0	.0	.1	.1	1.5	1.2	.0	.0	25	.1	2.8
4	.0	.0	.1	.8	3.8	1.3	.0	.0	52	.5	5.6
3	.0	.0	.1	1.9	3.7	.6	.0	.0	54	.0	6.3
2	.0	.0	.1	3.0	5.0	.2	.0	.0	72	.2	8.1
1	.0	.2	.3	3.2	4.9	.0	.0	.0	92	.2	10.4
0	.0	.1	.6	9.0	5.6	.1	.0	.0	133	.1	15.3
-1	.0	.0	1.0	9.5	2.8	.0	.0	.0	115	.8	12.5
-2	.0	.0	2.4	6.0	1.3	.1	.0	.0	85	.3	9.5
-3	.0	.0	4.1	5.1	.3	.0	.0	.0	82	.1	9.4
-4	.0	.0	3.0	2.5	.2	.0	.0	.0	50	.0	5.8
-5	.1	.2	2.3	.9	.5	.0	.0	.0	35	.1	3.9
-6	.0	.1	1.0	.1	.2	.0	.0	.0	13	.0	1.5
-7/-8	.0	.3	.6	.5	.3	.0	.0	.0	15	.1	1.6
-9/-10	.0	.3	.5	.1	.0	.0	.0	.0	8	.0	.9
-11/-13	.0	.2	.0	.1	.0	.0	.0	.0	3	.0	.3
TOTAL	1	14	142	392	265	45	9	2	864	23	841
PCT	.1	1.6	16.4	45.4	30.7	5.2	.9	.2	100.0	2.7	97.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.2	2.8	.6	.0	.0	.0	3.5
3-4	.0	1.2	2.4	.0	.0	.0	3.5
5-6	.0	.4	.4	.2	.0	.0	.9
7	.0	.0	.4	.2	.0	.0	.6
8-9	.0	.0	.2	.0	.2	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.7	3.9	.4	.2	.0	9.2

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.6	.0	.0	.0	.0	1.3
1-2	.1	2.1	.5	.0	.0	.0	2.7
3-4	.0	.4	.8	.0	.0	.0	1.2
5-6	.0	.1	.9	.3	.0	.0	1.3
7	.0	.0	.4	.1	.0	.0	.5
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.6	3.0	.7	1.6	.0	8.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.6	1.5	.9	.0	.0	.0	3.0
3-4	.0	1.1	1.9	.6	.0	.0	3.6
5-6	.0	.0	.6	.5	.2	.0	1.3
7	.2	.2	.2	.6	.7	.0	1.9
8-9	.0	.0	.2	.2	.0	.0	.4
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.2	.0	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.3	.0	.3
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	2.8	4.0	2.3	1.4	.0	11.2

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.2	.0	.0	.0	.4
1-2	.1	2.4	.4	.0	.0	.0	2.8
3-4	.0	.6	1.2	.3	.0	.0	2.0
5-6	.0	.2	1.3	.1	.1	.0	1.6
7	.0	.2	.0	.0	.2	.0	.4
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.2	.0	.2
13-16	.0	.0	.0	.1	.4	.0	.5
17-19	.0	.0	.0	.0	.4	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.3	.0	.3
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.6	3.0	.7	1.6	.0	8.9

PERIOD: (OVER-ALL) 1963-1977 OCTOBER AREA 0026 AUCKLAND EAST
TABLE 18 (CONT) 36.1S 175.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	2.7	1.7	.0	.0	.0	4.3
3-4	.0	1.0	1.1	.6	.0	.0	2.7
5-6	.0	.0	1.2	.8	.0	.0	1.9
7	.0	.0	.4	.2	.0	.0	.6
8-9	.0	.2	.0	.2	.0	.0	.4
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.3	4.3	2.1	.0	.0	10.7

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.8	.0	.0	.0	.0	1.0
1-2	.0	2.8	.9	.0	.0	.0	3.7
3-4	.0	1.3	3.1	.0	.0	.0	4.4
5-6	.0	.3	1.0	.5	.0	.0	1.7
7	.0	.0	.5	.8	.0	.0	1.3
8-9	.0	.0	.4	.4	.0	.0	.8
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.2	.2	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	5.2	5.9	2.3	.2	.0	13.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.2	5.6	1.2	.0	.0	.0	7.1
3-4	.0	1.7	2.7	.6	.0	.0	5.0
5-6	.0	.4	3.4	.5	.2	.0	4.5
7	.0	.0	.2	.6	.0	.0	.8
8-9	.0	.0	.3	1.7	.0	.0	2.0
10-11	.0	.0	.0	.6	.0	.0	.6
12	.0	.0	.2	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	8.1	8.0	4.2	.4	.0	20.9

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	1.4	.0	.0	.0	.0	1.6	
1-2	.2	3.1	1.6	.0	.0	.0	4.9	
3-4	.2	1.6	2.6	.2	.0	.0	4.6	
5-6	.0	.8	1.6	.1	.0	.0	2.5	
7	.0	.0	.9	.5	.0	.0	1.4	
8-9	.0	.0	.7	.1	.1	.0	.8	
10-11	.0	.0	.0	.3	.0	.0	.3	
12	.0	.0	.2	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	6.9	7.6	1.0	.1	.0	16.2	97.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.1	4.5	.2	.0	.0	.0	8.8	
1-2	1.4	23.0	7.6	.0	.0	.0	32.0	
3-4	.2	8.6	15.4	2.3	.0	.0	26.4	
5-6	.0	2.0	10.0	2.9	.4	.0	15.4	
7	.2	.4	2.9	2.9	.8	.0	7.2	
8-9	.0	.2	1.8	2.7	.2	.0	4.9	
10-11	.0	.0	.0	1.4	.0	.0	1.4	
12	.0	.0	.4	.0	.2	.0	.6	
13-16	.0	.0	.0	.4	.6	.0	1.0	
17-19	.0	.0	.0	.4	.8	.0	1.2	
20-22	.0	.0	.2	.2	.0	.0	.4	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.6	.0	.6	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.9	38.7	38.5	13.1	3.7	.0	100.0	488

PERIOD: (OVER-ALL) 1950-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.5	10.9	16.5	9.6	3.6	2.9	1.3	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	251	4
6-7	.0	1.0	3.4	6.9	3.4	2.3	1.7	1.1	2.3	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	120	7
8-9	.0	.6	1.1	2.3	1.7	1.0	1.9	.8	1.3	1.1	.2	.4	.2	.0	.0	.0	.0	.0	.0	67	9
10-11	.0	.8	.8	1.0	.4	.4	.6	.0	.2	.4	.2	.0	.6	.4	.0	.0	.0	.0	.0	29	11
12-13	.0	.0	1.3	.0	.2	.0	.2	.0	.4	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	14	8
>13	.0	.0	.0	.6	.0	.0	.0	.2	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	6	14
INDEF	3.1	.8	1.1	1.0	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	2
TOTAL	29	73	127	111	52	35	30	14	24	12	4	2	6	3	0	0	0	0	0	522	6
PCT	5.6	14.0	24.3	21.3	10.0	6.7	5.7	2.7	4.6	2.3	.8	.4	1.1	.6	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1865-1977

AREA 0026 AUCKLAND EAST
36.2S 175.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG W/O PCPN	FOG W/O PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	8.8	1.0	4.2	.0	.0	.0	.0	14.8	1.2	.4	6.0	.0	.0	.5		77.2
NE	5.5	3.1	1.2	.0	.0	.0	.0	9.8	1.8	1.8	3.4	.0	.0	.0		83.2
E	4.3	2.1	1.9	.0	.0	.0	.0	8.3	2.4	2.4	2.1	.0	.9	.0		83.9
SE	3.4	.3	4.5	.0	.0	.0	.0	8.2	1.7	.0	4.1	.0	.3	.0		85.6
S	2.5	.0	3.2	.0	.0	.0	.7	6.4	.0	.9	2.3	.0	1.6	.0		88.8
SW	.2	1.8	.1	.0	.0	.0	.1	2.3	.3	.4	6.6	.0	1.7	.0		88.5
W	1.6	5.4	1.3	.0	.0	.0	.0	8.3	1.3	.5	4.3	.0	.7	.0		84.6
NW	3.7	2.5	2.6	.0	.0	.0	.0	8.8	2.3	1.0	4.0	.0	1.4	.1		82.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	2.3	2.3	.0	.0	.0	.0	.0	4.7	.0	.0	.0	.0	.0	.0		95.3
TOT PCT	3.1	2.6	2.0	.0	.0	.0	.1	7.8	1.3	.8	4.3	.0	.9	.1		84.8
TOT OBS:	1277															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG W/O PCPN	FOG W/O PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	2.8	2.6	2.6	.0	.0	.0	.0	8.0	1.7	.3	5.7	.0	.6	.3		83.5
06&09	4.2	1.3	1.0	.0	.0	.0	.3	6.8	2.3	.3	2.6	.0	2.9	.0		85.2
12&15	1.5	2.8	1.2	.0	.0	.0	.0	5.6	.3	2.2	4.0	.0	.6	.0		87.3
18&21	4.1	3.5	2.8	.0	.0	.0	.0	10.4	1.3	.3	4.7	.0	.0	.0		83.2
TOT PCT	3.1	2.5	1.9	.0	.0	.0	.1	7.7	1.4	.8	4.3	.0	1.0	.1		84.8
TOT OBS:	1302															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.3	5.8	3.7	.5	.0	.0		11.3	9.8	13.9	13.2	16.1	10.8	12.1	5.0	9.6	5.2
NE	.6	3.7	1.8	.5	.0	.0		6.1	9.9	6.0	8.4	5.0	7.8	6.3	6.7	5.4	4.5
E	.7	3.3	3.3	1.2	.1	.0		8.6	13.2	9.8	6.1	12.6	5.3	8.0	10.9	9.7	5.7
SE	.6	2.5	1.7	.7	.1	.0		5.6	12.1	7.2	4.3	5.9	4.0	4.5	2.0	7.9	7.3
S	1.0	4.6	2.7	.4	.0	.0		8.7	9.8	8.2	2.5	6.8	7.7	8.9	15.1	8.8	11.6
SW	3.0	8.0	6.5	1.0	.0	.0		18.6	10.2	15.3	14.5	9.9	26.1	21.9	22.6	13.0	23.9
W	1.8	10.0	8.7	1.8	.1	.0		22.3	11.7	21.2	29.1	20.1	27.9	20.5	20.6	21.5	21.2
NW	1.0	6.2	7.0	.8	.1	.0		15.1	12.2	14.8	18.2	21.0	7.2	13.7	10.7	21.1	15.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.7							3.7	.0	3.7	3.6	.6	3.3	4.2	6.3	3.1	4.8
TOT OBS	207	673	534	105	7	0	1526		10.7	300	110	170	183	286	126	162	189
TOT PCT	13.6	44.1	35.0	6.9	.5	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.6	4.9	1.6	.2	.0		11.3	9.8	13.7	14.5	9.9	7.2
NE	2.5	2.4	1.2	.1	.0		6.1	9.9	6.6	6.4	6.4	4.9
E	2.2	3.2	2.4	.6	.1		8.6	13.2	8.8	8.9	8.9	7.5
SE	1.9	2.3	1.0	.4	.0		5.6	12.1	6.4	4.9	3.8	7.5
S	3.2	4.3	1.2	.0	.0		8.7	9.8	6.6	7.2	10.8	10.3
SW	7.1	7.9	3.0	.6	.0		18.6	10.2	15.1	18.3	22.1	18.9
W	5.7	11.2	4.9	.5	.0		22.3	11.7	23.3	24.2	20.5	21.3
NW	3.1	8.3	3.1	.6	.0		15.1	12.2	15.7	13.9	12.8	18.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.7						3.7	.0	3.7	2.0	4.9	4.0
TOT OBS	518	679	282	46	1	1526		10.7	410	393	412	391
TOT PCT	33.9	44.5	18.5	3.0	.1		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.7	10.2	44.9	32.9	7.8	.5	.0	10.8	100.0	410
06&09	2.0	11.6	41.9	37.1	6.5	.8	.0	11.0	100.0	353
12&15	4.9	6.3	49.5	32.0	7.3	.0	.0	10.4	100.0	412
18&21	4.0	12.0	39.0	38.7	5.7	.6	.0	10.7	100.0	351
TOT	56	151	673	534	105	7	0	10.7		1526
PCT	3.7	9.9	44.1	35.0	6.9	.5	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.4	1.6	4.1	6.1		5.8
NE	1.1	.4	2.6	3.1		6.0
E	3.2	1.8	3.0	3.1		5.1
SE	1.9	.8	1.8	2.4		5.0
S	2.2	2.5	1.4	1.8		4.2
SW	6.1	2.8	2.9	1.1		3.1
W	7.6	4.4	6.3	.8		3.6
NW	4.4	3.7	6.0	4.5		4.9
VAR	.0	.0	.0	.0		.0
CALM	1.0	.7	.3	.2		2.8
TOT OBS	178	112	169	136	595	4.6
TOT PCT	29.9	18.8	28.4	22.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.0	.7	2.7	2.3	1.6	.3	.2	.0	.0	6.2	
NE	*	.0	*	1.6	1.5	1.0	.0	.0	.0	.0	3.0	
E	.1	.0	.6	1.7	1.0	1.0	.0	.0	.0	.0	3.7	
SE	.0	*	.4	.8	1.4	.0	.5	.0	.0	.0	3.8	
S	.0	.1	.5	.5	1.3	.5	.1	.0	.0	.1	4.7	
SW	.0	.0	.2	.3	1.5	.3	*	.0	.0	*	10.5	
W	.0	.0	.2	.6	1.6	1.3	.8	.0	.0	.2	14.5	
NW	.7	.3	.2	2.1	3.3	.7	.1	.3	.0	.2	10.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	2.0	
TOT OBS	6	3	16	61	82	38	12	3	0	3	371	595
TOT PCT	1.0	.5	2.7	10.3	13.8	6.4	2.0	.5	.0	.5	62.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.3	.5	.5	.5	.5	.5	.5	.5
* OR >5000	.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
* OR >3500	2.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1
* OR >2000	8.1	9.1	9.1	9.2	9.2	9.2	9.2	9.2
* OR >1000	18.8	21.7	22.2	22.6	22.6	22.7	22.7	22.7
* OR >600	23.6	30.1	32.3	32.8	32.8	32.9	32.9	32.9
* OR >300	24.9	32.5	34.9	35.4	35.4	35.6	35.6	35.6
* OR >150	25.2	32.9	35.4	35.9	35.9	36.1	36.1	36.1
* OR > 0	25.5	33.4	36.2	36.7	36.7	37.1	37.1	37.1
TOTAL	155	203	220	223	223	225	225	225

TOTAL NUMBER OF OBS: 607 PCT FREQ NH <5/8: 62.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
10.5	20.4	14.9	9.2	8.0	5.8	5.8	7.9	17.1	.5	638

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3	
1/2<1	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.2	
	NO PCP	.6	.1	*	.1	.2	1.1	1.1	.4	.0	.0	3.5	
	TOT %	.6	.1	*	.1	.2	1.2	1.1	.4	.0	.1	3.7	
1<2	PCP	.2	*	.1	.0	.0	.0	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.0	*	.2	.0	.0	.2	
	TOT %	.2	*	.1	.0	.0	.0	*	.2	.0	.0	.5	
2<5	PCP	.5	.1	.1	.2	.0	.0	.2	.2	.0	.0	1.3	
	NO PCP	.1	*	.5	.2	.1	.2	.1	.5	.0	.1	1.3	
	TOT %	.7	.1	.5	.3	.1	.2	.3	.5	.0	.1	2.6	
5<10	PCP	.5	.2	.3	.2	.3	.3	1.1	.9	.0	.1	3.9	
	NO PCP	2.0	1.6	1.2	1.2	2.4	6.3	5.2	3.9	.0	1.2	25.0	
	TOT %	2.5	1.8	1.5	1.4	2.8	6.6	6.3	4.8	.0	1.3	28.9	
10+	PCP	.3	.3	.2	.1	.2	*	.5	.2	.0	.0	1.9	
	NO PCP	6.7	4.1	6.1	3.8	5.4	11.1	13.7	9.3	.0	2.0	62.1	
	TOT %	7.0	4.4	6.3	3.9	5.6	11.1	14.2	9.5	.0	2.0	63.9	
	TOT OBS												1276
	TOT PCT	11.1	6.4	8.2	5.7	8.6	19.1	21.9	15.6	.0	3.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	11-21	*	.0	.0	.0	.0	.0	.0	*	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.2	.0	.1	.4	
1/2<1	0-3	.2	.0	.0	.1	.1	*	.3	.0	.0	.1	.7	
	4-10	.4	.1	*	.0	.1	1.1	.7	.3	.0		2.8	
	11-21	*	.0	.0	.0	.0	.0	.1	.1	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.6	.1	*	.1	.2	1.2	1.1	.4	.0	.1	3.7	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.1	*	.0	.0	.0	.0	.0	.2	.0		.3	
	22+	.0	*	.1	.0	.0	.1	*	*	.0		.2	
	TOT %	.3	*	.1	.0	.0	.1	*	.2	.0	.0	.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.1	.0	.0	.0	.0	.2	.2	*	.0		.5	
	11-21	.5	*	.1	.0	.1	*	.2	.4	.0		1.2	
	22+	.1	.1	.3	.3	.0	.0	.0	.1	.0		.9	
	TOT %	.8	.1	.3	.3	.1	.2	.3	.5	.0	.2	2.8	
5<10	0-3	.2	.1	.1	*	.3	.9	.3	.4	.0	1.2	3.6	
	4-10	1.1	.8	.5	.8	1.9	3.5	4.1	2.0	.0		14.9	
	11-21	.9	.6	.6	.5	.4	1.7	1.5	2.0	.0		8.1	
	22+	.2	.2	.2	.1	.1	.4	.3	.3	.0		1.8	
	TOT %	2.5	1.7	1.4	1.4	2.7	6.5	6.2	4.7	.0	1.2	28.4	
10+	0-3	.8	.5	.5	.5	.8	2.5	1.4	.5	.0	1.9	9.5	
	4-10	3.9	2.8	2.5	1.8	2.6	3.8	4.5	3.8	.0		25.6	
	11-21	2.1	.8	2.4	1.2	2.1	4.4	7.1	4.7	.0		24.9	
	22+	.1	.2	.8	.4	.2	.6	1.3	.4	.0		4.1	
	TOT %	7.0	4.3	6.2	3.9	5.6	11.3	14.3	9.4	.0	1.9	64.0	
	TOT OBS												1299
	TOT PCT	11.2	6.3	8.1	5.7	8.5	19.3	22.0	15.4	.0	3.5	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.4	.7	3.4	8.1	10.1	6.8	4.1	.0	.0	.7	35.1	64.9	148
06&09	.0	.6	2.4	11.8	11.2	5.9	2.4	.0	.0	.6	34.9	65.1	169
12&15	.0	.7	2.0	10.1	13.5	6.1	.0	.0	.0	.7	33.1	66.9	148
18&21	2.4	.0	2.4	9.7	17.6	5.5	1.8	1.8	.0	.0	41.2	58.8	165
TOT	6	3	16	63	83	38	13	3	0	3	228	402	630
PCT	1.0	.5	2.5	10.0	13.2	6.0	2.1	.5	.0	.5	36.2	63.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.6	5.9	.8	2.3	27.8	62.6	353
06&09	.3	1.9	.9	4.7	24.7	67.4	316
12&15	.0	3.3	.9	1.5	36.4	57.9	335
18&21	.9	3.1	.6	2.5	23.5	69.9	319
TOT	6	48	9	36	373	851	1323
PCT	.5	3.6	.7	2.7	28.2	64.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NM >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.4	6.3	15.5	21.1	63.4	142
06&09	.0	3.0	15.9	18.9	65.2	164
12&15	.0	2.9	14.4	20.1	65.5	139
18&21	2.5	4.9	15.4	26.5	58.0	162
TOT	6	26	93	132	382	607
PCT	1.0	4.3	15.3	21.7	62.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
75/79	.0	.0	.1	.5	.2	.1	.3	.3	15	1.4
70/74	.0	.0	.3	.9	1.0	.8	.6	.5	41	3.9
65/69	.0	.0	.0	1.9	1.8	6.9	4.7	4.7	203	19.5
60/64	.0	.3	.3	.8	6.2	11.9	14.2	15.7	514	49.4
55/59	.0	.0	.1	.4	3.5	8.7	7.0	4.4	253	24.3
50/54	.0	.0	.0	.0	.2	.4	.1	.7	14	1.3
TOTAL	0	3	8	42	134	300	280	274	1041	100.0
PCT	.0	.3	.8	4.0	12.9	28.8	26.9	26.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
.1	.0	.2	.0	.1	.6	.1	.2	.0	.2
.6	.1	.6	.1	.5	.6	1.0	.3	.0	.1
3.0	1.6	2.3	.7	.9	2.1	3.7	4.8	.0	.4
7.8	3.4	4.7	2.4	2.7	6.9	10.2	9.5	.0	1.8
.6	.3	1.5	2.3	3.0	7.3	6.7	1.7	.0	.8
.0	.0	.1	.1	.6	.2	.3	.0	.0	.1
12.0	5.6	9.4	5.6	7.7	17.8	22.0	16.5	.0	3.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	79	76	72	64	58	55	50	64.4	410
06&09	80	75	69	63	56	54	48	62.6	398
12&15	71	66	65	60	55	51	48	59.9	413
18&21	76	73	67	61	55	51	45	61.1	393
TOT	80	74	69	62	55	52	45	62.0	1594

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	10.0	18.6	32.3	19.0	20.1	76	279
06&09	.0	5.0	12.8	26.7	25.2	30.2	81	298
12&15	.0	1.5	11.6	30.1	30.3	26.3	82	259
18&21	.0	3.3	8.5	25.9	32.2	30.0	82	270
TOT	0	54	138	307	284	283	80	1066

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.0	.0	.2	2	.0	.2
11/13	.0	.0	.0	.0	.2	.0	.0	.3	5	.0	.5
9/10	.0	.0	.0	.0	.1	.2	1.2	.0	15	.1	1.4
7/8	.0	.0	.0	.1	.2	.8	.9	.1	17	.1	1.7
6	.0	.0	.0	.0	.3	.9	.4	.0	16	.3	1.3
5	.0	.0	.0	.1	1.7	3.3	.6	.0	55	.6	5.1
4	.0	.0	.0	.1	4.4	2.3	.1	.0	67	.6	6.3
3	.0	.0	.0	.4	3.9	3.0	.4	.0	75	.4	7.3
2	.0	.0	.0	1.3	6.3	3.0	.1	.0	104	.6	10.1
1	.0	.0	.2	2.4	6.2	2.5	.0	.0	109	1.0	10.2
0	.0	.0	.4	4.5	8.4	2.0	.1	.0	149	.3	15.1
-1	.0	.0	1.1	3.7	4.7	1.1	.0	.0	104	.5	10.2
-2	.0	.1	1.2	4.2	3.8	.1	.0	.0	92	.5	9.0
-3	.0	.1	1.2	2.6	1.7	.4	.0	.0	58	.7	5.8
-4	.0	.1	1.0	3.2	1.1	.0	.0	.0	53	.1	5.4
-5	.1	.0	1.0	.9	.2	.0	.0	.0	22	.1	2.2
-6	.0	.2	.9	.6	.0	.0	.0	.0	17	.1	1.7
-7/-8	.0	.1	.0	.3	.1	.0	.0	.0	5	.0	.5
-9/-10	.0	.2	.0	.1	.0	.0	.0	.0	3	.0	.3
-11/-13	.0	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	1	8	70	240	420	190	34	6	969	55	914
PCT	.1	.8	7.2	24.8	43.3	19.6	3.5	.6	100.0	5.7	94.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1
1-2	.4	4.2	.4	.0	.0	.0	4.9
3-4	.0	.7	2.4	.0	.0	.0	3.1
5-6	.0	.4	1.9	.2	.0	.0	2.5
7	.0	.0	.5	.2	.0	.0	.7
8-9	.0	.0	.6	.0	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	6.3	5.7	.4	.0	.0	12.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	2.6	.4	.0	.0	.0	3.0
3-4	.0	1.0	.9	.0	.0	.0	1.9
5-6	.0	.2	.7	.2	.0	.0	1.1
7	.0	.0	.4	.3	.0	.0	.8
8-9	.0	.0	.2	.2	.0	.0	.4
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	*	.0	.0	*
13-16	.0	.2	.0	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.2	2.5	1.0	.0	.0	7.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1
1-2	.0	2.5	.6	.0	.0	.0	3.1
3-4	.0	1.2	3.0	.2	.0	.0	4.3
5-6	.0	.0	.5	.7	.0	.0	1.2
7	.0	.0	.7	.8	.2	.0	1.7
8-9	.0	.0	.2	.3	.0	.0	.5
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	5.0	2.5	.2	.0	11.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5
1-2	*	1.8	.6	.0	.0	.0	2.4
3-4	.0	.5	1.2	.2	.0	.0	1.9
5-6	.0	.0	.4	.2	.4	.0	1.0
7	.0	.0	.2	.5	.0	.0	.7
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	*	2.7	2.4	1.3	.4	.0	6.9

PERIOD: (OVER-ALL) 1963-1977 NOVEMBER AREA 0026 AUCKLAND EAST 36.2S 175.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7
1-2	.1	2.2	1.5	.0	.0	.0	3.9
3-4	.0	.5	1.1	.2	.0	.0	1.8
5-6	.0	.0	1.1	.0	.0	.0	1.1
7	.0	.0	.2	.3	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.1	.0	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.5	3.9	.5	.0	.0	8.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	*	.2	.0	.0	.0	.0	.2
1-2	.2	2.4	2.1	.0	.0	.0	4.7
3-4	.4	.8	2.2	*	.0	.0	3.4
5-6	.0	.6	1.1	.2	.0	.0	1.9
7	.0	.0	.6	.2	.0	.0	.8
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	*	.0	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.0	6.0	1.2	.0	.0	11.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.0	.0	.0	.0	.0	.7
1-2	.3	3.2	3.0	.0	.0	.0	6.5
3-4	.0	1.1	5.5	.1	.0	.0	6.8
5-6	.0	.4	2.3	.4	.2	.0	3.3
7	.0	.0	1.3	.6	.0	.0	1.9
8-9	.0	.0	.2	.4	.0	.0	.6
10-11	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.2	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	4.7	12.5	2.2	.2	.0	20.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.8	.0	.0	.0	.0	1.0	
1-2	.4	4.5	1.9	.0	.0	.0	6.7	
3-4	.0	1.5	4.9	.0	.0	.0	6.4	
5-6	.0	.2	1.8	.0	.2	.0	2.2	
7	.0	.0	1.2	.2	.0	.0	1.4	
8-9	.0	.0	.2	.2	.0	.0	.4	
10-11	.0	.0	.0	.2	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.4	.0	.0	.4	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	7.0	9.9	1.0	.2	.0	18.6	98.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.0	4.0	.0	.0	.0	.0	7.0	
1-2	1.9	23.3	10.2	.0	.0	.0	35.3	
3-4	.4	7.2	20.8	.8	.0	.0	29.1	
5-6	.0	1.7	9.6	1.9	.8	.0	14.0	
7	.0	.0	5.1	3.0	.2	.0	8.3	
8-9	.0	.0	1.3	1.7	.0	.0	3.0	
10-11	.0	.0	.0	1.1	.0	.0	1.1	
12	.0	.0	.0	.8	.0	.0	.8	
13-16	.0	.2	.0	.8	.0	.0	.9	
17-19	.0	.0	.4	.0	.0	.0	.4	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.3	36.3	47.4	10.0	.9	.0	100.0	929

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.9	11.7	19.3	10.3	6.7	1.6	.4	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	291	4
6-7	.2	1.4	4.6	6.9	4.8	2.0	1.4	.0	.9	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	124	6
8-9	.0	.0	2.3	2.8	2.7	1.1	.9	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	60	6
10-11	.0	.5	.9	.4	1.1	.4	.0	.4	.2	.4	.0	.2	.0	.0	.0	.0	.0	.0	.0	24	8
12-13	.0	.0	1.1	1.1	.5	.2	.2	.0	.4	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	20	7
>13	.0	.0	.0	.2	.7	.2	.0	.2	.2	.0	.2	.0	.0	.0	.0	.4	.0	.0	.0	11	18
INDEF	2.8	.9	1.4	.0	.2	.0	.2	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	3
TOTAL	20	82	167	122	94	30	17	10	11	5	3	1	0	0	0	2	0	0	0	564	5
PCT	3.5	14.5	29.6	21.6	16.7	5.3	3.0	1.8	2.0	.9	.5	.2	.0	.0	.0	.4	.0	.0	.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1924-1977
(OVER-ALL) 1857-1977

AREA 0026 AUCKLAND EAST
36.1S 175.4E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	6.8	2.9	3.1	.0	.0	.0	.0	12.8	2.6	1.9	8.3	.0	1.2	.0		74.2
NE	3.9	5.4	2.6	.0	.0	.0	.0	11.9	1.5	1.1	3.6	.0	.2	.0		82.7
E	2.6	6.2	.9	.0	.0	.0	.0	9.7	2.6	.0	4.2	.0	4.2	.0		79.3
SE	4.6	2.0	2.6	.0	.0	.0	.0	9.2	1.6	1.3	4.9	.0	1.9	.0		81.6
S	3.5	.8	1.0	.0	.0	.0	.0	5.3	1.8	.8	1.5	.0	.0	.0		90.6
SW	.7	2.1	.5	.0	.0	.0	.0	3.3	1.0	.6	6.7	.0	1.0	.0		87.7
W	2.2	3.6	1.0	.0	.0	.0	.0	6.9	.3	.4	5.4	.0	1.4	.0		85.8
NW	4.3	1.9	1.5	.0	.0	.0	.0	7.7	1.8	1.9	6.7	.0	.3	.3		81.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	8.5	.0	.0	.0	.0	.0	.0	8.5	2.1	.0	.0	.0	4.3	.0		85.1
TOT PCT	3.5	3.0	1.5	.0	.0	.0	.0	8.0	1.9	.9	5.3	.0	1.2	.1		83.4
TOT OBS:	1287															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	2.8	3.9	1.1	.0	.0	.0	.0	7.9	.3	.0	6.5	.0		.0		84.8
06&09	2.8	2.2	1.6	.0	.0	.0	.0	6.6	1.3	.6	2.5	.0	2.2	.0		86.7
12&15	4.4	3.8	1.5	.0	.0	.0	.0	9.6	1.2	2.6	7.3	.0	.6	.0		80.2
18&21	3.3	2.1	1.5	.0	.0	.0	.0	6.9	3.0	.3	4.8	.0	1.5	.3		83.1
TOT PCT	3.3	3.0	1.4	.0	.0	.0	.0	7.8	1.4	.9	5.4	.0	1.2	.1		83.6
TOT OBS:	1345															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	2.7	5.4	2.7	.4	.1	.0		11.3	8.4	13.2	19.3	17.4	13.5	8.2	10.8	6.8	7.1
NE	2.5	5.8	2.5	.6	.0	.0		11.4	8.9	10.7	8.5	14.5	14.2	13.1	8.3	9.3	9.9
E	.8	4.4	3.4	1.0	.0	.0		9.6	11.4	9.5	8.0	12.7	5.4	11.7	9.9	12.3	7.6
SE	1.5	2.2	1.2	.4	.0	.0		5.4	8.8	5.6	2.6	7.0	5.2	4.7	2.9	6.4	7.2
S	1.6	3.1	2.2	.4	.1	.0		7.4	9.5	8.4	8.2	2.9	5.5	10.2	7.0	8.7	6.0
SW	3.2	7.4	4.0	1.3	.0	.0		15.9	9.6	19.1	15.9	8.2	14.4	13.9	22.1	12.4	18.5
W	4.7	8.5	6.7	.7	.0	.0		20.6	9.1	17.4	20.5	16.8	26.8	18.2	18.9	26.2	22.5
NW	2.7	6.4	4.6	.7	.1	.0		14.4	9.6	13.2	12.5	20.9	10.9	15.0	14.4	13.4	15.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.1							4.1	.0	2.9	4.3	1.6	4.1	5.1	5.8	2.5	6.0
TOT OBS	371	675	425	86	4	0	1561		9.0	311	88	128	222	294	139	161	218
TOT PCT	23.8	43.2	27.2	5.5	.3	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	5.7	4.3	1.0	.2	.0		11.3	8.4	14.5	14.9	9.0	7.0
NE	5.3	4.2	1.6	.2	.0		11.4	8.9	10.2	14.3	11.5	9.6
E	2.9	4.3	2.1	.2	.0		9.6	11.4	9.1	8.1	11.1	9.6
SE	2.5	2.3	.4	.2	.0		5.4	8.8	4.9	5.9	4.1	6.9
S	3.6	2.6	1.1	.2	.0		7.4	9.5	8.4	4.6	9.2	7.1
SW	6.4	6.7	2.4	.3	.0		15.9	9.6	18.4	12.1	16.5	15.9
W	8.2	9.6	2.8	*	.0		20.6	9.1	18.1	22.4	18.4	24.1
NW	5.4	7.2	1.6	.3	.0		14.4	9.6	13.0	14.6	14.8	13.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.1						4.1	.0	3.3	3.1	3.3	4.3
TOT OBS	688	645	204	24	0	1361		9.0	399	390	493	379
TOT PCT	44.1	41.3	13.1	1.5	.0		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00603	3.3	21.1	39.1	31.1	5.5	.0	.0	9.1	100.0	399
06609	3.1	22.9	43.7	24.6	5.7	.0	.0	8.8	100.0	350
12615	5.3	12.5	48.0	25.9	7.9	.5	.0	9.7	100.0	433
18621	4.5	23.5	41.7	27.2	2.6	.5	.0	8.3	100.0	379
TOT	64	307	675	425	86	4	0	9.0		1561
PCT	4.1	19.7	43.2	27.2	5.5	.3	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.4	2.1	4.3	2.1		4.9
NE	1.9	1.7	5.2	2.7		5.3
E	3.0	2.1	4.1	2.6		4.8
SE	2.7	1.2	1.2	1.4		3.9
S	3.0	1.5	3.0	1.0		4.1
SW	4.8	2.4	3.4	.9		3.4
W	7.5	5.1	4.5	1.5		3.4
NW	5.6	2.5	6.2	2.6		4.4
VAR	.0	.0	.0	.0		.0
CALM	1.3	.0	1.5	1.2		4.9
TOT OBS	167	96	173	83	519	4.3
TOT PCT	32.2	18.5	33.3	16.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	2.6	.7	.5	.1	.2	.0	.0	6.8	
NE	.0	.0	.4	.9	2.8	.2	.3	.0	.0	.0	6.8	
E	.0	.1	.2	1.1	1.4	.7	.1	.0	.0	.0	8.1	
SE	.4	*	.0	.9	.4	.2	.0	.0	.0	.0	4.5	
S	.0	.0	.0	.8	1.1	1.0	.5	.0	.0	.0	5.2	
SW	.0	.0	.2	.7	1.4	.4	.1	.0	.2	*	8.9	
W	.0	.0	.2	.5	1.5	.5	.1	.0	.0	.3	15.4	
NW	.0	.0	.2	1.6	1.9	.9	.3	.2	.2	.2	11.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.8	.6	.4	.2	.0	.0	.0	2.1	
TOT OBS	2	1	6	51	62	25	9	2	2	3	350	519
TOT PCT	.6	.2	1.2	9.8	11.9	4.8	1.7	.4	.4	.6	68.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >300YD	* OR >0
* OR >6500	.9	.9	.9	.9	.9	.9	.9	.9
* OR >5000	1.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
* OR >3500	2.4	2.9	3.3	3.3	3.3	3.3	3.3	3.3
* OR >2000	6.6	7.5	8.1	8.1	8.1	8.1	8.1	8.1
* OR >1000	15.3	19.2	20.2	20.2	20.2	20.2	20.2	20.2
* OR >600	21.1	28.1	29.8	29.8	29.8	29.8	29.8	29.8
* OR >300	21.5	28.9	30.9	30.9	30.9	30.9	30.9	30.9
* OR >150	21.5	28.9	31.1	31.1	31.1	31.1	31.1	31.3
* OR > 0	21.5	28.9	31.3	31.4	31.4	31.4	31.4	31.6
TOTAL	117	157	170	171	171	171	171	172

TOTAL NUMBER OF OBS: 544 PCT FREQ NH <5/8: 68.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
19.0	23.3	13.1	11.7	6.7	3.7	6.7	6.7	12.0	.4	586

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.2	
1/2<1	PCP	*	.1	.2	.1	.0	.0	.2	*	.0	.0	.7	
	NO PCP	1.0	.3	.1	.1	.1	1.1	1.0	.8	.0	.0	4.4	
	TOT %	1.0	.4	.3	.2	.1	1.1	1.2	.8	.0	.0	5.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	NO PCP	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.1	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
2<5	PCP	.4	*	.2	.1	.0	.0	.0	.2	.0	.0	.8	
	NO PCP	.1	.3	.2	.2	.1	.1	.4	.3	.0	.2	1.7	
	TOT %	.5	.3	.3	.3	.1	.1	.4	.4	.0	.2	2.5	
5<10	PCP	.8	1.2	.5	.3	.3	.4	.9	.7	.0	.1	5.1	
	NO PCP	1.7	1.7	2.0	1.1	1.4	4.2	5.0	2.9	.0	.6	20.1	
	TOT %	2.5	2.9	2.5	1.3	1.7	4.6	6.0	3.2	.0	.7	25.2	
10+	PCP	.2	.1	.1	.0	.1	.2	.2	.2	.0	.2	1.2	
	NO PCP	7.0	8.2	5.7	4.0	5.7	10.1	12.6	9.7	.0	2.6	65.4	
	TOT %	7.2	8.3	5.8	4.0	5.8	10.3	12.9	9.9	.0	2.7	66.7	
	TOT OBS												1284
	TOT PCT	11.2	12.0	8.8	5.9	7.6	16.0	20.4	14.4	.0	3.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.1	.0	.1	.0		.2	
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.1	.0	.0	.0	.1	.0	.1	.0	.0	.2	
1/2<1	0-3	.1	.1	.0	.1	.1	.3	.1	.2	.0	.0	.8	
	4-10	.8	.2	.2	.1	*	.6	1.1	.7	.0		3.7	
	11-21	.1	.1	.1	.1	.0	.2	.0	.0	.0		.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	1.0	.4	.3	.2	.1	1.0	1.2	.8	.0	.0	5.1	
1<2	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0		.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
2<5	0-3	.1	.3	.0	.0	.1	.1	.3	.1	.0	.2	1.0	
	4-10	.2	.0	.1	.2	.0	.0	.0	.2	.0		.5	
	11-21	.1	*	.1	*	.0	*	.1	.1	.0		.5	
	22+	.2	*	.1	.1	.0	.0	.0	.1	.0		.5	
	TOT %	.5	.3	.3	.3	.1	.1	.3	.4	.0	.2	2.5	
5<10	0-3	.5	.5	.4	.3	.1	.8	1.5	.3	.0	.7	5.2	
	4-10	1.1	1.3	1.0	.4	.9	2.1	1.9	1.6	.0		10.5	
	11-21	.4	.7	.9	.3	.4	1.1	2.3	1.1	.0		7.1	
	22+	.4	.3	.1	.3	.3	.5	.2	.2	.0		2.2	
	TOT %	2.5	2.8	2.4	1.3	1.6	4.5	5.9	3.2	.0	.7	24.9	
10+	0-3	2.0	2.1	.4	1.4	1.5	2.4	3.2	2.0	.0	2.7	17.8	
	4-10	3.1	4.4	3.0	1.7	1.8	4.6	5.1	3.7	.0		27.4	
	11-21	2.1	1.7	2.0	.7	2.0	2.7	4.3	3.4	.0		18.9	
	22+	.1	.1	.5	.2	.4	.8	.3	.6	.0		2.9	
	TOT %	7.2	8.3	6.0	4.0	5.8	10.5	12.9	9.8	.0	2.7	67.1	
	TOT OBS												1299
	TOT PCT	11.2	11.9	9.0	5.8	7.6	16.2	20.3	14.3	.0	3.6	100.0	

DECEMBER

PERIOD: (PRIMARY) 1924-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.9	.9	.0	8.0	5.3	7.1	.9	.0	.0	.9	23.9	76.1	113
06&09	.0	.0	.7	9.5	13.9	1.5	3.6	1.5	.0	.0	30.7	69.3	137
12&15	.0	.0	2.4	12.8	11.0	4.3	1.2	.0	.6	.6	32.9	67.1	164
18&21	.7	.7	.7	6.2	15.8	6.2	1.4	.7	.7	.7	33.6	66.4	146
TOT	2	2	6	52	66	26	10	3	2	3	172	388	560
PCT	.4	.4	1.1	9.3	11.8	4.6	1.8	.5	.4	.5	30.7	69.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	6.4	.9	1.7	26.3	65.3	357
06&09	.3	3.4	.3	4.0	23.7	68.2	321
12&15	.6	5.7	.3	1.7	32.1	59.6	349
18&21	.3	3.9	.6	2.7	18.4	74.6	331
TOT	4	67	3	34	343	907	1358
PCT	.3	4.9	.2	2.5	25.3	66.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.9	1.8	10.7	13.4	75.9	112
06&09	.0	.7	11.2	20.1	68.7	134
12&15	.0	2.5	17.8	17.2	65.0	157
18&21	1.4	2.1	9.2	25.5	65.2	141
TOT	3	10	68	105	371	544
PCT	.6	1.8	12.5	19.3	68.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.2	.1	.0	.1	4	.4
75/79	.0	.0	.1	.4	1.2	1.8	.4	.4	48	4.3
70/74	.0	.0	.0	1.1	2.6	3.8	3.6	1.8	145	12.9
65/69	.0	.1	.0	.8	4.7	9.5	13.5	11.8	455	40.5
60/64	.0	.0	.3	.2	4.0	8.6	12.5	8.9	388	34.5
55/59	.0	.0	.0	.3	.7	2.0	2.8	1.4	80	7.1
50/54	.0	.0	.0	.0	.1	.0	.1	.2	4	.4
TOTAL	0	1	4	31	151	290	371	276	1124	100.0
PCT	.0	.1	.4	2.8	13.4	25.8	33.0	24.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.2	.0	.0	.0	.0	.0	.1	.0	.1
.7	.8	.1	.1	.1	1.0	.9	.3	.0	.4
2.0	1.9	.6	.4	.8	1.7	2.8	1.9	.0	.6
4.1	5.5	5.7	2.4	2.4	4.8	7.8	6.6	.0	1.1
2.8	2.6	2.2	3.0	3.7	6.7	7.4	4.7	.0	1.4
.2	.1	.3	.5	1.3	1.9	1.7	.7	.0	.4
.1	.0	.0	.0	.0	.1	.0	.2	.0	.0
9.8	11.1	9.0	6.5	8.4	16.3	20.6	14.4	.0	4.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	81	79	75	67	61	57	54	67.5	419
06&09	79	78	75	66	60	56	54	66.6	368
12&15	72	70	68	63	59	56	50	63.1	487
18&21	81	74	71	64	59	55	50	64.6	396
TOT	81	77	73	65	59	56	50	65.4	1620

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	8.3	23.1	29.6	24.2	14.8	76	277
06&09	.0	3.9	17.3	24.4	31.8	22.6	80	283
12&15	.0	.3	4.3	25.8	40.1	29.4	84	299
18&21	.0	1.6	9.2	23.8	35.6	29.8	83	315
TOT	0	40	155	303	389	287	81	1174

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TABLE 17

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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.1	.0	.0	.1	2	.0	.2
11/13	.0	.0	.1	.2	.3	.2	.3	11	.0	1.3
9/10	.0	.0	.1	.5	.1	.2	.0	8	.0	.9
7/8	.0	.0	.3	.5	1.5	.9	.1	29	.5	2.8
6	.0	.0	.0	1.0	.6	.0	.0	14	.1	1.5
5	.0	.0	.5	2.4	1.9	.6	.0	47	.8	4.6
4	.0	.0	.8	3.6	1.4	.2	.0	53	1.0	5.0
3	.0	.1	1.4	3.6	1.5	.0	.0	58	.6	6.0
2	.0	.0	3.5	6.5	1.3	.0	.0	99	1.3	10.0
1	.0	.3	4.6	5.8	1.0	.0	.0	103	.6	11.2
0	.0	.6	7.4	6.2	.7	.0	.0	130	.8	14.0
-1	.0	2.5	3.5	5.0	.5	.0	.0	101	1.4	10.1
-2	.0	2.1	3.3	3.5	.2	.1	.0	81	.6	8.7
-3	.1	1.5	3.4	1.7	.0	.0	.0	59	.3	6.4
-4	.5	1.5	1.5	.8	.0	.0	.0	37	.2	4.0
-5	.1	.8	1.3	.8	.0	.0	.0	26	.0	3.0
-6	.0	.6	.2	.3	.0	.0	.0	10	.0	1.1
-7/-8	.3	.2	.1	.2	.0	.0	.0	8	.0	.9
-9/-10	.0	.1	.0	.1	.0	.0	.0	2	.0	.2
TOTAL	9	90	281	377	96	20	5	878	71	807
PCT	1.0	10.3	32.0	42.9	10.9	2.3	.6	100.0	8.1	91.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.3	.0	.0	.0	.0	1.7
1-2	.2	2.1	.6	.0	.0	.0	2.9
3-4	.0	1.4	1.2	.0	.0	.0	2.7
5-6	.0	.2	2.0	.4	.2	.0	2.8
7	.0	.0	1.2	.2	.2	.0	1.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.1	5.2	.6	.4	.0	11.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.6	.0	.0	.0	.0	1.3
1-2	.2	3.8	.2	.0	.0	.0	4.3
3-4	.0	1.9	2.2	.3	.0	.0	4.4
5-6	.0	.0	1.2	.1	.0	.0	1.2
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	6.4	3.7	.3	.0	.0	11.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	2.8	.4	.0	.0	.0	3.2
3-4	.0	1.4	3.1	.4	.0	.0	4.8
5-6	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.2	.4	.0	.0	.6
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.8	4.2	.8	.0	.0	9.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.0	.0	.0	.0	.0	.6
1-2	.4	1.3	.5	.0	.0	.0	2.2
3-4	.0	.6	.2	.0	.0	.0	.7
5-6	.0	.2	.8	.2	.0	.0	1.2
7	.0	.0	.1	.3	.0	.0	.3
8-9	.0	.0	.3	.1	.0	.0	.3
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	2.1	1.8	1.2	.0	.0	6.1

PERIOD: (OVER-ALL) 1963-1977 DECEMBER AREA 0026 AUCKLAND EAST 36.1S 175.4E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.4	.0	.0	.0	.0	.9
1-2	.0	1.7	.6	.0	.0	.0	2.3
3-4	.0	.4	1.7	.0	.0	.0	2.1
5-6	.0	.0	1.0	.2	.0	.0	1.2
7	.0	.0	.4	.2	.0	.0	.8
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.2	.2	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.4	3.9	.9	.2	.0	8.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.4	.0	.0	.0	.0	1.7
1-2	.2	2.1	.8	.0	.0	.0	3.2
3-4	.0	1.4	1.5	.0	.0	.0	2.9
5-6	.0	.0	1.6	.5	.0	.0	2.1
7	.0	.2	.7	1.4	.0	.0	2.3
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.1	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	5.2	4.7	2.3	.0	.0	12.6

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.2	.0	.0	.0	.0	1.2
1-2	.2	5.2	2.3	.0	.0	.0	7.7
3-4	.2	.9	2.8	.0	.0	.0	4.0
5-6	.0	.0	3.6	.6	.0	.0	4.2
7	.0	.0	.8	.0	.0	.0	.8
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	7.6	9.6	.9	.0	.0	18.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.8	.0	.0	.0	.0	.8	
1-2	.4	2.6	1.9	.0	.0	.0	4.9	
3-4	.0	2.2	4.0	.2	.0	.0	6.4	
5-6	.0	.4	3.7	.7	.0	.0	4.8	
7	.0	.2	.2	.0	.0	.0	.4	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.1	.0	.0	.0	.1	
12	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.2	.0	.2	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	6.2	9.8	1.2	.2	.0	17.9	96.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.4	6.6	.0	.0	.0	.0	13.0	
1-2	2.2	21.5	7.5	.0	.0	.0	31.0	
3-4	.2	10.1	16.3	.9	.0	.0	27.7	
5-6	.0	.9	14.1	2.6	.2	.0	17.8	
7	.0	.4	4.0	2.4	.2	.0	7.0	
8-9	.0	.0	.4	.7	.0	.0	1.1	
10-11	.0	.0	.2	.7	.2	.0	1.1	
12	.0	.0	.0	.7	.0	.0	.7	
13-16	.0	.2	.0	.0	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.2	.0	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.2	.0	.2	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								455
TOT PCT	8.8	39.6	42.6	8.1	.9	.0	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.3	10.3	13.8	9.2	4.1	.6	1.0	.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	207	4
6-7	.0	2.9	5.3	10.1	5.5	2.1	1.0	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	137	6
8-9	.0	.2	1.0	2.9	3.5	1.6	1.0	.6	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	58	7
10-11	.0	1.2	.4	.8	1.4	.6	.8	.2	.8	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	38	8
12-13	.0	.0	1.8	.2	.4	.0	.0	.2	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	16	7
>13	.0	.0	.0	.0	.6	.0	.2	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	6	12
INDET	3.1	.4	1.0	.8	1.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	3
TOTAL	86	73	114	116	82	24	20	11	11	7	2	0	1	0	0	0	0	0	0	487	5
PCT	5.3	15.0	23.4	23.8	16.8	4.9	4.1	2.3	2.3	1.4	.4	.0	.2	.0	.0	.0	.0	.0	.0	100.0	

ANNUAL

PERIOD: (PRIMARY) 1924-1978
(OVER-ALL) 1857-1978

AREA 0026 AUCKLAND EAST
36.1S 175.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	9.5	4.9	3.7	.0	.0	.0	.1	18.0	3.0	.8	4.4	.0	1.0	.2		72.8
NE	9.4	5.9	4.3	.0	.0	.0	*	19.6	2.4	1.1	2.4	.1	.6	.1		74.0
E	8.8	6.3	4.2	.0	.0	.0	.0	19.2	2.8	.3	2.3	.0	1.0	.1		74.3
SE	6.2	4.6	2.8	.0	.0	.0	.0	13.3	2.4	.5	2.3	.0	.5	.1		81.1
S	2.9	1.7	1.4	.0	.0	.0	.1	6.0	.8	.8	1.7	.0	.8	.1		89.9
SW	1.4	2.5	.7	.0	.0	.0	.1	4.6	.8	.4	2.2	*	1.0	*		91.0
W	2.5	3.5	1.4	.0	.0	.0	*	7.5	1.7	.8	2.5	.0	.8	.1		86.8
NW	4.3	3.5	2.7	.0	.0	.0	.1	10.5	2.4	1.3	3.2	.0	1.5	.1		81.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	2.3	.9	.8	.0	.0	.0	.0	3.5	.4	.3	2.2	.0	3.1	.0		90.4
TOT PCT	4.8	3.0	2.3	.0	.0	.0	*	10.8	1.8	.7	2.6	*	1.0	.1		83.1
TOT OBS:	14746															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.2	4.4	2.2	.0	.0	.0	.1	10.8	1.5	*	3.1	.1	1.3	.2		83.0
06&09	5.0	2.5	2.3	.0	.0	.0	.1	9.8	2.0	.6	1.8	.0	1.5	.1		84.3
12&15	4.5	5.3	1.8	.0	.0	.0	.0	11.6	1.5	1.9	3.3	.0	.4	.0		81.8
18&21	5.2	2.6	2.7	.0	.0	.0	*	10.6	2.2	.5	2.6	.0	1.1	.1		83.0
TOT PCT	4.7	3.7	2.2	.0	.0	.0	*	10.7	1.8	.7	2.7	*	1.1	.1		83.0
TOT OBS:	15182															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.4	4.3	3.0	.8	.1	*		9.6	10.9	10.0	13.4	11.4	9.7	9.5	8.5	8.3	7.5
NE	1.5	4.4	2.8	.7	.2	*		9.6	10.9	9.7	10.6	9.2	10.8	9.4	10.5	7.4	9.2
E	1.1	4.2	4.1	1.4	.4	*		11.3	13.4	10.6	12.9	13.2	10.0	12.8	11.0	11.9	8.7
SE	1.4	3.6	2.7	.8	.2	.1		8.8	11.5	9.6	8.5	8.1	7.1	8.0	8.1	11.1	9.6
S	1.9	4.9	3.5	.8	.1	*		11.2	10.4	11.4	9.2	9.1	10.2	11.5	12.4	11.9	12.3
SW	2.7	7.5	5.7	1.3	*	.0		17.2	10.4	16.9	14.4	13.9	20.1	17.0	18.4	15.5	19.6
W	2.2	7.1	5.9	1.7	.2	*		17.1	11.6	17.1	16.8	17.3	17.5	16.6	17.0	18.2	16.9
NW	1.4	4.9	4.3	.9	.1	*		11.6	11.4	11.5	11.4	16.0	9.8	12.0	9.9	13.2	10.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.6							3.6	.0	3.2	2.9	1.7	4.6	3.2	4.0	2.6	5.8
TOT OBS							18090		10.9	3700	1228	1601	2652	3213	1478	1779	2439
TOT PCT	17.2	41.0	31.9	8.3	1.4	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.6	4.0	1.6	.3	*		9.6	10.9	10.8	10.4	9.2	7.9
NE	3.4	4.2	1.5	.4	.1		9.6	10.9	9.9	10.2	9.8	8.4
E	2.9	4.8	2.7	.8	.1		11.3	13.4	11.2	11.4	12.2	10.1
SE	3.1	3.6	1.5	.5	.1		8.8	11.5	9.3	7.5	8.0	10.3
S	4.2	4.8	1.8	.3	*		11.2	10.4	10.8	9.8	11.8	12.2
SW	6.1	7.6	2.9	.5	*		17.2	10.4	16.3	17.5	17.4	17.8
W	5.1	7.8	3.4	.8	*		17.1	11.6	17.0	17.4	16.8	17.4
NW	3.4	5.7	2.0	.4	*		11.6	11.4	11.3	12.2	11.4	11.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.6						3.6	.0	3.1	3.6	3.5	4.5
TOT OBS						18090		10.9	4928	4293	4691	4218
TOT PCT	39.6	42.5	17.5	4.0	.4		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00603	3.1	15.3	39.0	31.8	9.2	1.4	.1	10.9	100.0	4928
06609	3.6	15.2	40.7	31.8	7.3	1.3	.1	10.5	100.0	4253
12615	3.5	7.4	44.6	33.9	9.0	1.5	.3	11.6	100.0	4691
18621	4.5	16.6	39.7	29.9	7.6	1.5	.1	10.3	100.0	4218
TOT								10.9		18090
PCT	3.6	13.5	41.0	31.9	8.3	1.4	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.7	1.8	3.0	3.2		5.4
NE	1.2	1.2	3.0	2.8		5.8
E	2.1	2.0	4.0	4.2		5.6
SE	2.8	1.7	2.9	2.4		4.6
S	4.1	2.3	2.7	1.7		4.0
SW	6.5	3.5	3.7	1.0		3.3
W	6.6	4.3	5.4	1.4		3.7
NW	3.6	2.8	4.9	2.7		4.6
VAR	.0	.0	.0	.0		.0
CALM	1.2	.4	.8	.3		3.4
TOT OBS					6290	4.4
TOT PCT	29.8	20.1	30.5	19.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.1	*	.3	1.6	1.7	.6	.2	.1	.0	*	5.1	
NE	*	*	.4	1.3	1.6	.6	.2	*	.0	*	4.1	
E	.1	.1	.6	2.1	2.4	.9	.3	*	.0	.1	5.9	
SE	.1	*	.3	1.2	1.6	.5	.2	.1	.0	.0	5.7	
S	*	*	.3	.9	1.3	.6	.2	*	*	*	7.3	
SW	.0	.0	.1	.7	1.5	.6	.2	.1	*	.1	11.5	
W	.0	.0	.1	1.1	1.9	.9	.3	.1	*	.1	13.3	
NW	.1	*	.3	1.6	2.0	.7	.3	.1	*	.1	8.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	*	.0	.2	.2	.1	.1	.0	*	.0	2.1	
TOT PCT	.4	.2	2.4	10.5	14.2	5.5	1.9	.4	.1	.4	63.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.4	.5	.5	.5	.5	.5	.5	.5
* OR >5000	.7	.9	1.0	1.0	1.0	1.0	1.0	1.0
* OR >3500	2.4	2.8	2.9	2.9	2.9	2.9	2.9	2.9
* OR >2000	6.9	8.2	8.4	8.4	8.4	8.4	8.4	8.4
* OR >1000	17.4	21.4	22.2	22.3	22.4	22.4	22.4	22.4
* OR >600	22.7	30.3	32.4	32.8	32.9	33.0	33.0	33.0
* OR >300	23.3	31.7	34.6	35.1	35.3	35.3	35.3	35.3
* OR >150	23.4	31.9	34.8	35.3	35.5	35.6	35.6	35.6
* OR > 0	23.5	32.0	35.1	35.7	35.9	36.0	36.0	36.0

TOTAL NUMBER OF OBS: 6471 PCT FREQ NH <5/8: 64.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
9.9	18.2	15.7	11.8	8.3	6.5	6.9	7.1	15.4	.2	6900

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	*	.0	*	*	*	.0	*	.0	*	.1	
	NO PCP	*	*	*	*	.0	*	*	*	.0	*	.2	
	TOT %	*	.1	*	*	*	*	.1	.0	*	.3		
1/2<1	PCP	.1	.1	.1	.1	*	*	.1	.1	.0	*	.6	
	NO PCP	.3	.1	.1	.1	.1	.2	.2	.2	.0	*	1.3	
	TOT %	.4	.3	.2	.2	.1	.2	.3	.3	.0	*	1.9	
1<2	PCP	.1	.1	.1	.1	*	*	*	.1	.0	*	.6	
	NO PCP	.1	*	*	*	*	*	*	.1	.0	*	.3	
	TOT %	.2	.2	.1	.1	.1	.1	.1	.1	.0	*	1.0	
2<5	PCP	.3	.3	.4	.3	.1	.1	.1	.1	.0	*	1.6	
	NO PCP	.3	.3	.3	.2	.3	.4	.3	.2	.0	.1	2.3	
	TOT %	.6	.6	.7	.4	.4	.5	.4	.3	.0	.1	3.9	
5<10	PCP	.7	1.1	.9	.5	.3	.5	.8	.7	.0	*	5.6	
	NO PCP	2.1	2.5	2.4	2.0	2.7	5.1	3.9	2.7	.0	1.1	24.5	
	TOT %	2.8	3.6	3.3	2.5	3.0	5.6	4.6	3.4	.0	1.2	30.1	
10+	PCP	.3	.3	.3	.2	.2	.2	.3	.3	.0	.1	2.3	
	NO PCP	4.9	4.9	6.0	5.4	7.3	11.3	11.2	7.3	.0	2.2	60.5	
	TOT %	5.3	5.2	6.3	5.7	7.5	11.5	11.5	7.6	.0	2.3	62.8	
	TOT OBS												14736
	TOT PCT	9.3	9.8	10.6	8.9	11.0	18.0	17.0	11.8	.0	3.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	*	*	.0	.0	.0	.0	*	.0	.0	.1	.1	
	4-10	*	*	.0	*	.0	*	*	*	.0		.1	
	11-21	*	*	*	*	.0	*	*	*	.0		.1	
	22+	*	*	.0	*	*	.0	.0	*	.0		*	
	TOT %	*	.1	*	*	*	*	*	.1	.0	.1	.3	
1/2<1	0-3	*	*	*	*	*	.1	*	*	.0	*	.3	
	4-10	.3	.1	.1	.1	.1	.2	.2	.2	.0		1.2	
	11-21	.1	.1	.1	*	*	*	*	.1	.0		.4	
	22+	*	*	.1	*	*	*	*	*	.0		.2	
	TOT %	.4	.3	.2	.2	.1	.3	.3	.3	.0	*	2.1	
1<2	0-3	*	*	*	*	.1	*	*	*	.0	*	.3	
	4-10	.1	.1	*	*	*	.1	.1	.1	.0		.5	
	11-21	.1	.1	.1	*	*	*	*	.1	.0		.4	
	22+	.1	.1	.1	*	*	*	*	*	.0		.3	
	TOT %	.3	.2	.2	.1	.1	.1	.1	.2	.0	*	1.5	
2<5	0-3	.1	.1	*	.1	.1	.2	.1	*	.0	.1	.9	
	4-10	.2	.2	.1	.1	.1	.2	.1	.1	.0		1.1	
	11-21	.2	.1	.1	.1	.1	.1	.1	.1	.0		1.0	
	22+	.1	.2	.4	.2	*	*	*	.1	.0		1.0	
	TOT %	.6	.6	.7	.4	.4	.5	.4	.3	.0	.1	4.0	
5<10	0-3	.4	.5	.4	.4	.7	.9	.8	.4	.0	1.2	5.7	
	4-10	1.2	1.5	1.0	1.0	1.2	2.7	2.0	1.4	.0		12.0	
	11-21	.8	1.1	1.2	.8	.8	1.5	1.2	1.1	.0		8.5	
	22+	.4	.4	.6	.3	.3	.4	.5	.4	.0		3.4	
	TOT %	2.8	3.6	3.3	2.5	2.9	5.5	4.5	3.3	.0	1.2	29.6	
10+	0-3	.8	1.1	.7	1.0	1.2	2.0	1.5	.9	.0	2.3	11.3	
	4-10	2.6	2.5	2.8	2.5	3.3	4.7	4.4	3.0	.0		25.8	
	11-21	1.6	1.4	2.4	1.8	2.4	4.0	4.3	3.0	.0		20.9	
	22+	.2	.2	.6	.4	.5	.8	1.2	.5	.0		4.5	
	TOT %	5.2	5.2	6.4	5.7	7.5	11.5	11.4	7.5	.0	2.3	62.6	
	TOT OBS												15083
	TOT PCT	9.3	9.9	10.7	8.9	11.1	17.9	16.8	11.7	.0	3.6	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.5	.3	1.9	10.1	12.5	5.7	2.2	.5	.1	.4	34.1	65.9	1609
06&09	.3	.3	2.5	10.5	12.8	5.2	1.8	.5	.2	.5	34.6	65.4	1724
12&15	.3	.2	2.2	8.5	12.7	4.5	1.5	.1	.2	.4	30.7	69.3	1679
18&21	.6	.2	2.4	11.1	15.7	5.9	1.8	.6	.1	.2	38.4	61.6	1730
TOT PCT	.4	.2	2.3	10.1	13.5	5.3	1.8	.4	.1	.4	34.6	65.4	6742 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.2	2.5	1.2	2.6	30.3	63.3	4186
06&09	.4	1.9	2.5	7.1	20.2	57.9	3829
12&15	.2	2.4	1.1	2.1	34.4	59.7	3761
18&21	.4	1.2	1.0	3.9	24.5	69.0	3744
TOT PCT	.3	2.0	1.4	3.9	29.9	62.4	15520 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.5	3.2	14.9	20.9	64.2	1546
06&09	.3	3.4	15.4	20.9	63.8	1660
12&15	.3	3.0	13.0	19.8	67.2	1581
18&21	.7	3.3	16.1	23.6	60.3	1684
TOT PCT	.4	3.2	15.0	21.4	63.6	6471 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	*	*	.0	.0	.0	.0	.0		*
80/84	*	.0	.1	*	.1	.1	.1	*		.4
75/79	.0	*	.1	.2	.4	.5	.4	.2		1.8
70/74	*	*	.1	.3	1.4	2.3	2.7	2.6		9.5
65/69	.0	*	.1	.6	2.3	5.6	7.2	7.1		23.0
60/64	.0	.1	.2	.8	4.1	7.4	8.9	8.0		29.4
55/59	*	.1	.1	.9	3.6	8.2	8.0	6.3		27.1
50/54	.0	.0	.1	.3	1.2	1.8	2.6	1.9		7.9
45/49	.0	.0	*	*	.1	.1	.2	.3		.8
40/44	.0	.0	.0	.0	*	*	*	*		.1
TOTAL PCT	*	.2	.7	3.3	15.2	26.2	30.1	26.4	12769	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	*	.0	.0	.0	*	.0	*	.0	.0
*	.1	*	*	.1	.1	.1	*	.0	*
.1	.2	.1	.1	.2	.4	.4	.2	.0	.1
1.3	1.2	1.6	.7	.6	1.2	1.2	1.2	.0	.4
2.7	2.6	3.5	2.3	2.1	2.9	3.3	3.0	.0	.6
3.3	2.6	2.6	2.3	3.2	4.8	5.3	4.4	.0	.9
1.4	2.0	2.3	2.3	3.5	5.9	5.8	2.9	.0	1.1
.3	.3	.5	.9	1.6	1.9	1.5	.5	.0	.4
*	*	*	.1	.2	.2	.1	*	.0	.1
.0	.0	.0	*	*	*	*	.0	.0	*
9.2	8.9	10.7	8.8	11.4	17.5	17.7	12.2	.0	3.6

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	88	75	71	64	58	54	48	63.6	9005
06&09	85	71	68	63	57	54	44	62.2	4302
12&15	74	67	66	61	55	52	39	60.7	4706
18&21	88	70	67	61	55	51	41	61.1	4278
TOT	88	72	68	62	56	52	39	61.9	18292

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	*	7.5	18.5	28.4	25.3	20.2	78	3491
06&09	*	3.7	13.1	25.7	29.2	28.3	81	3263
12&15	*	2.4	10.8	27.2	34.8	24.8	82	3075
18&21	*	2.8	9.9	23.5	31.3	32.4	83	3296
TOT	4	392	1716	3426	3952	3475	81	13125

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	*	3	.0	*
14/16	.0	.0	.0	.0	.0	.1	*	.1	*	*	.0	.0	31	.0	.3
11/13	.0	.0	.0	.0	.1	.1	.1	.1	.1	.1	*	.0	61	.0	.6
9/10	.0	.0	.0	*	*	.1	.1	.2	.1	.1	*	.0	70	*	.7
7/8	.0	.0	.0	*	.1	.2	.4	.3	.3	*	.0	.0	138	*	1.3
6	.0	.0	.0	*	.1	.1	.3	.2	.1	*	.0	.0	93	*	.8
5	.0	.0	.0	.1	.2	.6	.8	.6	.3	*	.0	.0	284	.2	2.5
4	.0	.0	.0	.1	.4	1.3	.9	.8	.2	.0	.0	.0	408	.2	3.6
3	.0	.0	*	.3	.6	1.4	1.1	.8	.2	*	.0	.0	471	.2	4.3
2	.0	.0	.1	.4	1.4	2.6	2.3	1.4	.3	.0	.0	.0	891	.4	8.1
1	.0	.0	.1	.6	1.9	2.4	2.7	1.6	.1	.0	.0	.0	984	.5	8.9
0	.0	.0	.3	.8	3.3	4.5	3.5	2.1	.2	.0	.0	.0	1524	.5	14.2
-1	.0	*	.3	.9	3.5	2.8	3.1	.8	*	.0	.0	.0	1205	.5	11.1
-2	.0	*	.3	1.4	3.5	2.8	2.5	.7	*	.0	.0	.0	1189	.4	11.0
-3	.0	.1	.2	1.7	2.5	1.9	1.4	.3	*	.0	.0	.0	851	.2	8.0
-4	*	.1	.2	1.9	2.6	1.7	.8	.2	.0	.0	.0	.0	788	.2	7.4
-5	.0	.1	.3	1.7	1.5	1.3	.6	.1	.0	.0	.0	.0	575	.1	5.5
-6	*	*	.3	1.1	.7	.5	.3	*	.0	.0	.0	.0	299	*	2.9
-7/-8	*	*	.6	1.1	.8	.5	.2	*	.0	.0	.0	.0	332	*	3.2
-9/-10	*	.1	.3	.4	.4	.3	*	.0	.0	.0	.0	.0	142	.0	1.4
-11/-13	.0	.1	.2	.2	.1	*	.0	.0	.0	.0	.0	.0	58	.0	.6
-14/-16	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	.0	*
-17/-19	*	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	2	.0	*
-20/-22	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL													10405		
PCT	.1	.6	3.2	12.7	23.8	25.6	21.1	10.5	2.1	.3	.1	*	100.0	3.6	96.4

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.5	.0	.0	.0	.0	.7
1-2	.2	2.5	.5	.0	.0	.0	3.2
3-4	*	.9	1.6	.1	.0	.0	2.6
5-6	.0	.1	1.1	.3	.1	.0	1.6
7	*	*	.3	.2	*	.0	.6
8-9	.0	.0	.2	.1	.1	.0	.4
10-11	.0	.0	.1	.1	.0	.0	.1
12	.0	*	.0	*	.0	.0	.1
13-16	.0	.0	*	*	*	*	.1
17-19	.0	.0	*	*	*	.0	.1
20-22	.0	.0	.0	.0	*	.0	*
23-25	.0	.0	.0	*	.0	.0	*
26-32	.0	.0	.0	*	.0	.0	*
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.1	3.8	.9	.3	*	9.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6
1-2	.1	2.2	.5	.0	.0	.0	2.8
3-4	.0	.8	1.2	.1	.0	.0	2.1
5-6	*	.1	.9	.3	.1	.0	1.4
7	*	.0	.4	.2	*	*	.7
8-9	.0	*	.1	.2	*	.0	.3
10-11	.0	.0	*	.2	*	.0	.2
12	.0	*	*	*	*	.0	.1
13-16	.0	*	*	*	*	*	.1
17-19	.0	.0	.0	.0	*	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	*	*
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.6	3.2	1.0	.2	.1	8.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	*	.0	.0	.0	.5
1-2	.2	2.5	.9	.0	.0	.0	3.6
3-4	*	1.2	2.4	.2	.0	.0	3.9
5-6	.0	.1	1.2	.5	*	.0	1.8
7	*	.1	.6	.5	.2	.0	1.4
8-9	*	.0	.1	.2	*	*	.4
10-11	.0	.0	*	.2	.1	.0	.4
12	.0	*	*	.1	*	*	.1
13-16	.0	.0	*	.1	.1	.0	.2
17-19	.0	*	.0	.1	*	.0	.1
20-22	.0	.0	*	.0	.1	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	*	.0	*
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.3	5.3	1.8	.7	*	12.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.5	*	.0	.0	.0	.7
1-2	.3	2.3	.7	.0	.0	.0	3.2
3-4	*	.9	1.6	.3	.0	.0	2.8
5-6	.0	.1	1.2	.3	.1	.0	1.6
7	*	*	.4	.4	.1	.0	.8
8-9	.0	*	.1	.1	*	.0	.3
10-11	.0	.0	*	.1	*	.0	.2
12	.0	.0	.0	.1	*	*	.1
13-16	.0	.0	*	.1	*	.0	.1
17-19	.0	.0	.0	.0	*	*	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	*	*
26-32	.0	.0	.0	.0	*	.0	*
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	3.8	4.0	1.3	.3	.1	9.9

PERIOD: (OVER-ALL) 1963-1978 ANNUAL AREA 0026 AUCKLAND EAST
TABLE 18 (CONT) 36.1S 175.9E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8
1-2	.1	2.5	.9	.0	.0	.0	3.5
3-4	*	1.0	1.7	.1	.0	.0	2.9
5-6	.0	.1	1.3	.4	.0	.0	1.8
7	.0	*	.6	.4	*	.0	1.1
8-9	.0	*	.1	.2	*	.0	.3
10-11	.0	.0	*	.1	.1	.0	.2
12	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	*	.1	.1	.0	.2
17-19	.0	.0	*	.0	*	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	*	.0	*	.0	.1
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.2	4.6	1.4	.2	.0	10.8

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.8	*	.0	.0	.0	1.0
1-2	.2	3.1	1.3	.0	.0	.0	4.6
3-4	.1	1.4	2.8	.2	.0	.0	4.5
5-6	.0	.3	1.7	.5	.0	.0	2.5
7	.0	.1	.6	.4	.0	.0	1.0
8-9	.0	*	.2	.1	*	.0	.3
10-11	.0	.0	*	.1	.0	.0	.2
12	.0	*	.0	.1	.0	.0	.1
13-16	.0	.0	*	.1	*	.0	.1
17-19	.0	*	*	.1	*	.0	.1
20-22	.0	.0	.0	*	.0	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.7	6.6	1.6	.1	.0	14.4

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.5	.0	.0	.0	.0	.7
1-2	.2	3.8	1.9	.0	.0	.0	6.0
3-4	.1	1.4	3.5	.3	.0	.0	5.2
5-6	.0	.2	2.2	.5	.1	.0	3.0
7	.0	*	.9	.5	.1	.0	1.5
8-9	.0	*	.2	.4	*	.0	.7
10-11	.0	.0	.1	.3	.1	.0	.5
12	.0	.0	*	.1	.0	.0	.1
13-16	.0	.1	.0	*	*	*	.1
17-19	.0	*	*	*	.1	.0	.1
20-22	.0	.0	*	*	*	*	.1
23-25	.0	.0	.0	.0	*	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	6.1	8.8	2.2	.4	*	18.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.6	*	.0	.0	.0	.8	
1-2	.2	3.0	1.4	.0	.0	.0	4.6	
3-4	*	1.2	2.9	.1	.0	.0	4.3	
5-6	.0	.3	1.7	.4	.1	.0	2.4	
7	.0	*	.5	.3	*	.0	.9	
8-9	.0	*	.2	.2	*	.0	.5	
10-11	.0	.0	*	.2	.1	.0	.3	
12	.0	.0	*	.1	.0	.0	.1	
13-16	.0	.0	.0	.1	*	.0	.1	
17-19	.0	*	.0	*	*	.0	*	
20-22	.0	.0	.0	.0	*	*	*	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	*	.0	*	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	5.1	6.7	1.4	.2	*	14.0	97.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.5	4.3	.1	.0	.0	.0	8.9	
1-2	1.8	21.7	7.9	.0	.0	.0	31.4	
3-4	.3	8.8	17.5	1.4	.0	.0	27.9	
5-6	*	1.2	11.2	3.0	.4	.0	15.8	
7	.1	.3	4.1	2.9	.5	*	7.8	
8-9	*	.1	1.2	1.6	.3	*	3.1	
10-11	.0	.0	.3	1.4	.4	.0	2.1	
12	.0	.1	.1	.5	.1	*	.8	
13-16	.0	.1	.1	.4	.4	.1	1.0	
17-19	.0	.1	*	.2	.2	*	.5	
20-22	.0	.0	*	*	.1	*	.2	
23-25	.0	.0	*	.0	.1	*	.1	
26-32	.0	.0	.0	*	.1	.0	.1	
33-40	.0	.0	.0	.0	.0	*	*	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.7	36.6	42.6	11.4	2.5	.2	100.0	5981

PERIOD: (OVER-ALL) 1950-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.4	10.2	13.8	8.9	5.1	2.0	.9	.4	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	2616	4
6-7	*	1.4	4.8	6.9	5.3	2.5	2.2	.8	1.8	.3	.2	.1	.1	*	.0	.0	.0	.0	.0	1575	7
8-9	*	.5	1.7	2.4	2.8	1.7	1.5	.7	1.1	.5	.3	.1	*	.1	.0	.0	.0	.0	.0	817	8
10-11	.0	.9	.6	1.2	.9	.5	.4	.2	.6	.2	.1	.1	.1	.1	.0	*	.0	.0	.0	371	8
12-13	.0	.0	1.2	.3	.4	.3	.1	.1	.2	.2	.1	*	*	*	.0	.0	.0	.0	.0	180	7
>13	.0	.0	.0	.3	.6	.1	.1	.1	.2	.1	.1	.1	.1	.1	.0	*	.0	.0	.0	111	13
INDET	2.2	.5	.9	.7	.7	.3	.3	.1	.1	.1	*	.0	*	.0	.0	.0	.0	.0	.0	357	4
TOTAL																				6027	6
PCT	3.6	13.5	23.1	20.8	15.9	7.4	5.7	2.4	4.1	1.6	.9	.4	.4	.3	.0	*	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1924-1978
(OVER-ALL) 1857-1978

AREA 0026 AUCKLAND EAST
36.1S 175.5E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	*
77/78	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	*
75/76	.4	1.2	.8	.2	.0	.0	.0	.0	.0	.0	.0	.3	35	.3
73/74	2.4	6.3	3.2	1.7	.2	.0	.0	.0	.0	.0	.0	.6	158	1.1
71/72	8.4	17.7	13.5	5.4	.3	.2	.0	.0	.0	.0	.1	1.3	518	3.8
69/70	23.0	26.8	25.5	12.9	2.4	.5	.3	.2	.0	.3	.5	4.7	1100	8.0
67/68	28.4	24.2	30.0	28.3	10.0	2.2	.3	.1	.2	.5	3.3	15.4	1575	11.4
65/66	21.9	14.5	17.3	29.4	20.3	5.2	.7	.5	.6	1.0	10.8	23.2	1604	11.6
63/64	11.4	6.3	7.4	16.5	33.3	17.7	8.2	3.9	4.2	10.0	25.5	26.4	1928	14.0
61/62	3.0	1.4	.7	3.8	20.7	31.1	17.9	13.1	18.5	28.1	27.5	15.8	2105	15.3
59/60	.5	.8	.6	1.2	8.0	25.5	30.4	27.6	32.1	35.9	21.0	8.6	2281	16.6
57/58	.3	.3	.2	.6	3.3	7.8	16.2	26.1	25.4	18.1	8.9	1.2	1314	9.5
55/56	.2	.2	.8	.0	1.0	4.3	7.1	12.2	12.9	4.4	2.1	.3	553	4.0
53/54	.0	.0	.0	.0	.4	2.6	6.7	7.8	3.5	.8	.4	.2	269	2.0
51/52	.0	.0	.0	.0	.2	2.0	8.4	6.4	1.0	.3	.1	.0	220	1.6
49/50	.0	.0	.0	.0	.0	1.0	2.7	1.2	1.0	.4	.0	.0	74	.5
47/48	.0	.0	.0	.0	.0	.1	.9	.5	.3	.2	.0	.0	25	.2
45/46	.0	.0	.0	.0	.0	.0	.3	.5	.2	.0	.0	.0	13	.1
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	1152	1059	1204	945	1096	1019	1164	1291	1258	1175	1204	1149	13776	100.0
MEAN	67.3	68.5	67.9	60.5	63.4	60.6	58.1	57.6	58.6	59.9	61.7	64.4	62.8	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1014	1013	1014	1012	1014	1012	1012	1013	1013	1381
FEB	1015	1013	1015	1014	1016	1014	1017	1014	1015	1221
MAR	1016	1017	1017	1015	1017	1016	1017	1016	1016	1339
APR	1016	1015	1015	1016	1018	1017	1016	1016	1016	1314
MAY	1015	1017	1014	1015	1015	1016	1014	1016	1015	1295
JUN	1016	1015	1014	1017	1014	1015	1014	1017	1015	1273
JUL	1014	1013	1014	1015	1014	1013	1014	1015	1014	1260
AUG	1014	1014	1013	1014	1016	1016	1013	1014	1014	1514
SEP	1014	1013	1013	1014	1016	1015	1015	1015	1015	1339
OCT	1016	1014	1016	1017	1016	1017	1015	1017	1016	1254
NOV	1015	1016	1014	1015	1015	1015	1014	1015	1015	1305
DEC	1014	1015	1013	1014	1014	1014	1013	1015	1014	1353
ANN	1015	1015	1014	1015	1015	1015	1015	1015	1015	15848
OBS	3289	869	1622	2271	2869	1090	1800	2037		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	990	994	1002	1009	1013	1018	1023	1026	1029
FEB	990	999	1004	1011	1016	1020	1024	1027	1030
MAR	988	998	1004	1012	1017	1021	1027	1029	1031
APR	988	996	1002	1011	1017	1022	1028	1031	1033
MAY	986	992	999	1009	1014	1022	1028	1032	1035
JUN	987	991	997	1010	1016	1022	1030	1035	1038
JUL	986	990	998	1008	1015	1021	1029	1033	1037
AUG	984	991	998	1008	1014	1021	1030	1035	1039
SEP	984	993	998	1009	1015	1021	1028	1032	1036
OCT	989	996	1001	1011	1016	1022	1028	1032	1037
NOV	988	996	1002	1010	1015	1019	1025	1028	1030
DEC	994	997	1001	1010	1014	1019	1024	1028	1030

JANUARY

PERIOD: (PRIMARY) 1950-1978
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AREA 0027 COOK STRAIT (NW)
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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	13.2	2.0	2.0	.0	.0	.0	.0	17.3	2.0	.0	3.6	.0	3.6		.0	73.6
NE	.9	.0	.0	.0	.0	.0	.0	.9	.0	.0	7.0	.0	1.8		.0	90.4
E	5.6	3.2	.0	.0	.0	.0	.0	8.9	3.2	3.2	.0	.0	4.8		.0	79.8
SE	3.3	.0	1.5	.0	.0	.0	.0	4.7	2.9	1.5	1.5	.0	1.5		.0	88.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4	.0	2.2		.0	93.3
SW	1.7	.0	.0	.0	.0	.0	.0	1.7	.0	.0	1.7	.0	5.1		.0	91.5
W	.0	.0	.7	.0	.0	.0	.0	.7	.7	.0	2.9	.0	2.0		.0	93.8
NW	2.4	.0	1.1	.0	.0	.0	.0	3.5	2.9	.0	3.2	.0	4.6		.0	86.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	5.0	.0	.0	.0	.0	.0	5.0	.0	.0	.0	.0	10.0		.0	85.0
TOT PCT	2.6	.6	.7	.0	.0	.0	.0	3.9	1.3	.4	2.8	.0	3.3		.0	88.4
TOT OBS:	543															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	1.5	.0	.0	.0	.0	.0	.0	1.5	1.0	.0	5.3	.0	4.5		.0	87.2
06&09	3.0	.5	.5	.0	.0	.0	.0	4.0	2.0	.5	1.0	.0	3.0		.0	89.6
12&15	4.8	1.6	2.4	.0	.0	.0	.0	8.9	.8	.8	2.4	.0	2.4		.0	84.7
18&21	1.4	.0	.0	.0	.0	.0	.0	1.4	.0	.0	2.1	.0	2.1		.0	94.3
TOT PCT	2.7	.5	.7	.0	.0	.0	.0	3.8	1.2	.3	2.5	.0	3.0		.0	89.2
TOT OBS:	600															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	3.3	4.2	.9	.3	.0		9.5	13.0	9.8	9.4	8.9	4.6	8.0	17.0	12.3	4.8
NE	.5	1.9	2.5	*	*	.0		5.0	10.2	7.0	8.6	3.2	.0	3.5	3.6	7.1	14.3
E	.4	2.0	2.9	.3	.0	.0		5.6	12.5	6.1	7.0	5.4	8.7	2.6	7.1	5.6	4.8
SE	.4	2.4	4.9	2.3	.5	.0		12.5	16.7	13.9	3.1	12.7	14.9	12.6	7.1	14.4	4.8
S	.3	2.9	3.1	1.8	.3	.0		8.4	14.9	7.4	6.3	5.8	10.8	12.0	7.1	7.3	14.3
SW	.4	3.7	4.2	1.8	.2	.0		10.3	15.4	10.0	.8	11.3	6.3	13.9	16.1	9.7	9.5
W	.4	4.2	11.3	8.3	1.3	.1		27.6	18.4	25.2	37.5	28.0	31.6	27.2	19.6	28.4	19.0
NW	.2	4.6	10.4	1.9	.4	*		17.6	15.6	18.0	27.3	23.2	14.2	15.0	11.6	12.5	28.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.5							3.5	.0	2.6	.0	1.6	6.9	5.2	10.7	2.6	.0
TOT OBS	43	169	284	109	19	1	625		13.2	115	32	126	72	115	28	116	21
TOT PCT	6.9	27.0	45.4	17.4	3.0	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.6	4.2	2.2	.6	.0		9.5	13.0	9.7	8.1	9.8	11.1
NE	2.0	2.4	.5	*	.0		5.0	10.2	7.3	2.0	3.5	8.2
E	1.3	2.4	1.8	.0	.0		5.6	12.5	6.3	6.6	3.5	5.5
SE	1.5	4.4	5.6	.6	.4		12.5	16.7	11.6	13.5	11.5	13.0
S	1.5	3.8	2.5	.6	.1		8.4	14.9	7.1	7.6	11.0	8.4
SW	1.3	4.5	3.4	.8	.2		10.3	15.4	8.0	9.5	14.3	9.7
W	2.0	11.3	9.4	4.0	.8		27.6	18.4	27.9	29.3	25.7	27.0
NW	1.6	7.8	6.7	1.4	.1		17.6	15.6	20.1	19.9	14.3	15.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.5						3.5	.0	2.0	3.5	6.3	2.2
TOT OBS	108	255	202	90	10	625		13.2	147	198	143	137
TOT PCT	17.3	40.8	32.3	8.0	1.6		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.0	1.4	23.8	47.6	19.0	5.4	.7	16.8	100.0	147
06&09	3.5	2.0	20.2	50.5	19.2	4.5	.0	16.9	100.0	198
12&15	6.3	3.5	35.0	39.2	16.1	.0	.0	12.6	100.0	143
18&21	2.2	7.3	32.1	42.3	14.6	1.5	.0	13.6	100.0	137
TOT	22	21	169	284	109	19	1	15.2		625
PCT	3.5	3.4	27.0	45.4	17.4	3.0	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.5	.7	3.3	2.2		5.0
NE	2.2	.3	1.2	1.2		4.2
E	3.3	.3	1.2	1.2		3.2
SE	4.8	1.9	3.6	2.9		4.3
S	2.9	1.8	2.6	1.3		4.1
SW	3.5	3.6	2.7	1.4		3.9
W	8.9	6.0	8.5	3.4		3.9
NW	4.0	4.0	7.1	2.3		4.6
VAR	.0	.0	.0	.0		.0
CALM	1.3	.8	1.1	.3		3.6
TOT OBS	124	72	116	60	372	4.1
TOT PCT	33.3	19.4	31.2	16.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >6/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.2	1.3	2.3	.5	.0	.5	.0	.3	3.6	
NE	.0	.0	.3	.3	.8	.0	.0	.1	.0	.0	3.4	
E	.0	.0	.0	.2	.4	.8	.0	.0	.0	.0	4.6	
SE	.0	.0	.0	1.5	.7	.9	.3	.0	.0	.3	9.5	
S	.0	.0	.3	.7	1.0	1.1	.0	.0	.0	.0	5.4	
SW	.0	.3	.0	.0	2.1	.4	.5	.0	.0	.0	7.9	
W	.3	.0	.3	1.1	3.0	2.1	.7	.0	.0	.3	19.0	
NW	.0	.3	.0	.9	2.8	1.1	1.4	.0	.3	.0	10.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	2.7	
TOT OBS	1	2	4	22	49	29	11	2	1	3	248	372
TOT PCT	.3	.5	1.1	5.9	13.2	7.8	3.0	.5	.3	.8	66.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
= OR >5000	1.0	1.2	1.5	1.5	1.5	1.5	1.5	1.5
= OR >3500	2.4	4.2	4.4	4.4	4.4	4.4	4.4	4.4
= OR >2000	10.3	13.0	13.2	13.4	13.4	13.4	13.4	13.4
= OR >1000	19.3	25.9	26.2	26.4	26.4	26.4	26.4	26.4
= OR >600	21.3	30.6	31.5	31.8	32.0	32.0	32.0	32.0
= OR >300	22.0	31.5	32.5	32.8	33.0	33.0	33.0	33.0
= OR >150	22.2	31.8	33.0	33.3	33.5	33.5	33.5	33.5
= OR > 0	22.2	31.8	33.3	33.5	33.7	33.7	33.7	33.7
TOTAL	91	130	136	137	138	138	138	138

TOTAL NUMBER OF OBS: 409

PCT FREQ NH <5/8: 66.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
19.5	14.2	13.2	10.4	8.8	9.3	5.3	10.9	12.1	.2	431

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.4	
	NO PCP	.2	.0	.0	.0	.0	.2	.5	.3	.0	.0	1.1	
	TOT %	.4	.0	.0	.0	.0	.4	.5	.3	.0	.0	1.5	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.1	.1	.4	.0	.0	.0	.0	.0	.0	.7	
	TOT %	.2	.1	.1	.4	.0	.0	.0	.0	.0	.0	.7	
2<5	PCP	.3	*	.3	*	.0	.0	.2	.2	.0	.0	1.1	
	NO PCP	.3	.0	.1	.5	.1	*	.3	.8	.0	.0	2.2	
	TOT %	.6	*	.3	.5	.1	*	.5	1.0	.0	.0	3.3	
5<10	PCP	.5	.0	.2	.4	.0	.0	.2	.2	.0	.2	1.7	
	NO PCP	2.8	2.5	.8	4.4	1.6	2.8	9.4	5.0	.0	.4	29.6	
	TOT %	3.3	2.5	1.0	4.7	1.6	2.8	9.6	5.2	.0	.6	31.3	
10+	PCP	.6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.9	
	NO PCP	4.0	2.6	4.2	6.8	6.6	7.6	17.0	10.4	.0	3.1	62.3	
	TOT %	4.6	2.6	4.2	7.0	6.6	7.6	17.0	10.6	.0	3.1	63.2	
	TOT OBS												544
	TOT PCT	9.1	5.2	5.7	12.6	8.3	10.8	27.5	17.1	.0	3.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.2	.2	.0		.4	
	11-21	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.2	.0	.0	.0	.0	.4	.3	.1	.0		.9	
	TOT %	.4	.0	.0	.0	.0	.4	.5	.3	.0	.0	1.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.1	.1	.2	.0	.0	.0	.0	.0		.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	TOT %	.2	.1	.1	.4	.0	.0	.0	.0	.0	.0	.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	4-10	.0	.0	.0	.2	.1	.0	.1	.4	.0		.9	
	11-21	.3	.0	.3	.1	.0	*	.1	.6	.0		1.6	
	22+	.3	*	.0	.2	.0	.0	.0	.0	.0		.5	
	TOT %	.6	*	.3	.5	.1	*	.5	1.0	.0	.0	3.3	
5<10	0-3	.3	.1	.0	.4	.0	.0	.0	.0	.0	.7	1.6	
	4-10	.4	.9	.3	.3	.5	.7	1.3	1.0	.0		5.8	
	11-21	2.0	1.5	.4	2.5	.6	1.5	4.2	3.1	.0		15.6	
	22+	.4	.0	.0	1.3	.6	.7	4.2	1.2	.0		8.3	
	TOT %	3.2	2.5	.9	4.7	1.9	2.8	9.6	5.3	.0	.7	31.3	
10+	0-3	.3	.3	.3	*	.4	.4	.3	.2	.0	3.1	5.8	
	4-10	2.8	.9	1.2	1.6	2.3	3.1	4.8	3.3	.0		20.1	
	11-21	1.0	1.2	2.3	3.7	2.4	3.0	7.8	6.3	.0		27.7	
	22+	.3	*	.2	1.5	1.2	.9	4.6	1.0	.0		9.8	
	TOT %	4.5	2.5	4.1	6.9	6.5	7.5	17.5	10.8	.0	3.1	63.3	
	TOT OBS												953
	TOT PCT	8.9	5.2	5.6	12.4	8.1	10.7	28.0	17.3	.0	3.8	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	.0	6.5	12.0	6.5	1.1	.0	.0	2.2	28.3	71.7	92
06&09	.7	.7	.0	6.0	10.7	11.3	3.3	.0	.0	.0	32.7	67.3	150
12&15	.0	1.4	.0	2.9	11.6	5.8	.0	1.4	1.4	1.4	26.1	73.9	69
18&21	.9	.0	3.5	5.2	17.4	8.7	5.2	.9	.0	.0	41.7	58.3	115
TOT	2	2	4	23	55	37	12	2	1	3	141	285	426
PCT	.5	.5	.9	5.4	12.9	8.7	2.8	.5	.2	.7	33.1	66.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	2.2	1.5	2.2	40.4	53.7	136
06&09	.0	1.0	.5	2.9	21.5	74.1	205
12&15	.0	2.4	.0	4.0	30.4	63.2	125
18&21	.0	.0	.7	2.8	31.9	64.6	144
TOT	0	8	4	18	183	397	610
PCT	.0	1.3	.7	3.0	30.0	65.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NM >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	.0	7.9	22.5	69.7	89
06&09	.0	1.4	9.2	26.1	64.8	142
12&15	.0	1.5	6.0	20.9	73.1	67
18&21	.9	4.5	11.7	31.5	56.8	111
TOT	1	8	37	106	266	409
PCT	.2	2.0	9.0	25.9	65.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.2	.6	.6	.2	8	1.7
70/74	.0	.0	.2	.4	.4	2.6	3.0	2.8	44	9.5
65/69	.0	.2	.0	.4	1.1	3.0	10.0	15.2	138	29.9
60/64	.0	.0	.4	.0	2.8	9.7	16.0	19.0	222	48.1
55/59	.0	.0	.0	.0	.9	3.7	3.5	2.8	50	10.8
TOTAL	0	1	3	4	25	91	153	185	462	100.0
PCT	.0	.2	.6	.9	5.4	19.7	33.1	40.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.4	.0	.0	.2	.0	.5	.4	.2	.0	.0
1.4	1.0	.2	1.5	.4	1.0	1.2	2.1	.0	.9
3.2	2.3	2.7	2.9	2.8	1.3	6.9	5.5	.0	2.4
3.1	1.5	2.1	6.8	4.9	6.8	14.8	7.5	.0	.6
.8	.3	.5	2.7	1.6	1.4	3.3	.3	.0	.0
8.9	5.0	5.4	14.1	9.6	11.0	26.6	15.5	.0	3.9

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	76	75	73	69	60	55	55	65.4	191
06&09	77	75	72	64	58	57	55	64.7	227
12&15	72	71	70	69	57	56	55	62.5	190
18&21	72	71	68	63	57	57	54	62.9	192
TOT	77	75	70	64	57	56	54	64.0	800

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	4.8	10.6	24.0	35.6	25.0	80	104
06&09	.0	1.1	4.9	29.3	41.8	26.9	83	182
12&15	.0	.0	1.8	20.5	30.4	47.3	87	112
18&21	.0	.8	7.5	11.7	22.5	57.5	87	120
TOT	0	8	31	108	174	197	84	518

JANUARY

PERIOD: (PRIMARY) 1950-1978
(OVER-ALL) 1868-1978

AREA 0027 COOK STRAIT (NW)
39.9S 173.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
14/16	.0	.0	.0	.0	.2	.5	.0	3	.0	.7
11/13	.0	.0	.0	.0	.7	.2	.0	4	.0	1.0
9/10	.0	.0	.0	.7	.7	1.4	.0	12	.2	2.7
7/8	.0	.0	.5	2.4	2.2	.7	.0	24	.2	5.5
6	.0	.0	2.2	.7	.2	.0	.0	13	.0	3.1
5	.0	.0	1.9	2.4	1.2	.2	.2	25	.0	6.0
4	.0	.2	4.3	4.3	1.2	.0	.0	42	.0	10.1
3	.0	.2	2.4	2.7	1.0	.0	.0	26	.2	6.0
2	.0	1.4	7.5	3.9	1.2	.0	.0	58	.2	13.7
1	.0	2.7	2.7	3.9	.2	.0	.0	39	.0	9.4
0	.0	3.6	6.0	2.4	.7	.2	.0	54	.2	12.8
-1	.5	2.7	4.8	1.9	.0	.0	.0	41	.7	9.2
-2	.5	1.0	3.1	1.0	.5	.0	.0	25	.5	5.5
-3	.2	1.7	1.4	1.0	.0	.0	.0	18	.2	4.1
-4	.5	1.0	1.7	.0	.0	.0	.0	13	.2	2.9
-5	.0	.7	1.2	.0	.0	.0	.0	8	.0	1.9
-6	.0	.0	.2	.0	.0	.0	.0	1	.0	.2
-7/-8	.0	.7	.5	.0	.0	.0	.0	5	.0	1.2
-9/-10	.0	.5	.2	.0	.0	.0	.0	3	.0	.7
TOTAL	7	68	169	113	42	15	1	415	12	403
PCT	1.7	16.4	40.7	27.2	10.1	3.6	.2	100.0	2.9	97.1

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.7	.0	.0	.0	.0	1.0
1-2	.7	1.8	.7	.0	.0	.0	3.2
3-4	.0	.2	2.9	.3	.0	.0	3.4
5-6	.0	.0	.0	.2	.0	.0	.2
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.3	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	2.8	4.2	.5	.5	.0	8.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.8	.0	.0	.0	1.1
1-2	.1	.9	1.4	.0	.0	.0	2.4
3-4	.0	.0	.7	.0	.0	.0	.7
5-6	.0	.0	.0	.1	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.3	2.9	.1	.1	.0	4.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.3	.0	.0	.0	.8
1-2	.0	1.0	.5	.0	.0	.0	1.5
3-4	.0	.5	1.4	.0	.0	.0	2.0
5-6	.0	.0	.5	.0	.0	.0	.5
7	.0	.0	.3	.3	.0	.0	.5
8-9	.0	.0	.5	.0	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	1.8	3.4	.5	.0	.0	5.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.5	.0	.0	.0	.0	.8
1-2	.3	1.5	1.3	.0	.0	.0	3.1
3-4	.0	.9	2.6	.3	.0	.0	3.5
5-6	.0	.3	2.0	.6	.1	.0	3.0
7	.0	.0	.0	.8	.5	.0	1.3
8-9	.0	.0	.3	.3	.0	.0	.7
10-11	.0	.0	.0	.8	.0	.0	.8
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.0	6.2	3.2	.6	.0	13.8

PERIOD: (OVER-ALL) 1963-1978

JANUARY

TABLE 18 (CONT)

AREA 0027 COOK STRAIT (NZ) 39.9S 173.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.6	.2	.0	.0	.0	1.8
1-2	.3	1.9	.9	.0	.0	.0	3.1
3-4	.0	.3	.2	.5	.0	.0	.9
5-6	.0	.2	.7	.7	.2	.0	1.8
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.2	2.1	1.3	.2	.0	8.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.2	.3	.0	.0	.0	1.9
1-2	.0	1.9	.9	.0	.0	.0	2.8
3-4	.0	1.1	1.8	.1	.0	.0	3.0
5-6	.0	.0	1.0	1.0	.1	.0	2.1
7	.0	.0	.8	.0	.0	.0	.8
8-9	.0	.0	.5	.1	.0	.0	.6
10-11	.0	.0	.0	.7	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.1	.0	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.3	5.4	1.9	.1	.0	12.0

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	3.4	1.1	.0	.0	.0	5.0
1-2	.0	2.8	3.2	.0	.0	.0	6.0
3-4	.0	1.0	6.9	.9	.0	.0	8.8
5-6	.0	.5	2.4	1.2	.7	.0	4.9
7	.0	.0	.3	.5	.0	.0	.7
8-9	.0	.0	.0	.5	.3	.0	.7
10-11	.0	.0	.0	1.3	.0	.0	1.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.2	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	7.7	13.9	4.4	1.4	.2	28.1

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.3	1.1	.0	.0	.0	2.6
1-2	.0	1.6	2.9	.0	.0	.0	4.5
3-4	.0	1.1	3.8	.1	.0	.0	5.0
5-6	.0	.3	.9	.5	.0	.0	1.8
7	.0	.0	.9	.1	.0	.0	1.0
8-9	.0	.0	.5	.3	.0	.0	.8
10-11	.0	.0	.1	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.1	.1	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.1	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.4	10.2	1.0	.1	.1	16.1

HGT	TOTAL PCT
<1	2.6
1-2	4.5
3-4	5.0
5-6	1.8
7	1.0
8-9	.8
10-11	.1
12	.0
13-16	.1
17-19	.0
20-22	.1
23-25	.0
26-32	.0
33-40	.0
41-48	.0
49-60	.0
61-70	.0
71-86	.0
87+	.0
TOT PCT	96.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.4	9.4	3.8	.0	.0	.0	18.5	
1-2	1.3	13.4	11.8	.0	.0	.0	26.6	
3-4	.0	4.8	20.2	2.2	.0	.0	27.2	
5-6	.0	1.3	7.5	4.3	1.1	.0	14.2	
7	.0	.0	2.7	1.6	.5	.0	4.8	
8-9	.0	.0	1.9	1.3	.3	.0	3.5	
10-11	.0	.0	.3	3.0	.3	.0	3.5	
12	.0	.0	.0	.3	.0	.0	.3	
13-16	.0	.3	.0	.0	.3	.3	.8	
17-19	.0	.0	.0	.0	.3	.0	.3	
20-22	.0	.0	.0	.0	.3	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.7	29.3	48.1	12.6	3.0	.3	100.0	372

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	5.0	7.7	4.8	2.0	2.3	.7	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	103	4
6-7	.0	2.5	9.5	7.0	8.4	3.9	2.5	1.1	1.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	182	6
8-9	.0	1.4	3.4	2.3	4.3	3.0	2.3	.2	1.4	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	85	7
10-11	.0	.2	1.1	.7	2.0	1.6	.9	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	7
12-13	.0	.0	.7	.0	.0	.5	.2	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	8
>13	.0	.0	.0	.5	.5	.0	.2	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	7	10
INDET	3.2	.9	1.8	1.8	.5	1.1	.0	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	44	4
TOTAL	16	44	107	76	79	55	30	9	19	5	2	0	0	0	0	0	0	0	0	445	6
PCT	3.6	10.0	24.3	17.3	18.0	12.0	6.8	2.0	4.3	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

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PERIOD: (PRIMARY) 1943-1978
(OVER-ALL) 1871-1978

AREA 0027 COOK STRAIT (NW)
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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	4.5	2.6	3.5	.0	.0	.0	.0	10.6	1.9	.0	5.8	.0	7.1		.0	74.6
NE	3.6	.0	.0	.0	.0	.0	.0	3.6	.0	.0	7.1	.0	5.4		.0	83.9
E	.0	.0	1.9	.0	.0	.0	.0	1.9	1.4	.0	3.8	.0	3.3		.0	89.6
SE	.7	.0	.7	.0	.0	.0	.0	1.4	.2	.0	3.6	.0	.9		.0	94.0
S	1.8	.0	1.8	.0	.0	.0	.0	1.8	1.8	.0	1.8	.0	1.8		1.8	90.8
SW	.0	1.8	1.5	.0	.0	.0	.0	3.3	1.5	.0	4.4	.0	7.3		.0	83.5
W	.0	.8	1.8	.0	.0	.0	.0	2.6	1.0	.0	3.8	.0	2.1		.0	90.5
NW	1.5	1.0	3.5	.0	.0	.0	.0	5.0	2.5	.0	6.7	.0	2.0		.0	83.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	4.8	.0	.0	.0	.0	.0	.0	4.8	.0	.0	4.8	.0	4.8		.0	85.7
TOT PCT	1.4	.8	1.9	.0	.0	.0	.0	3.7	1.2	.0	4.5	.0	3.3		.2	87.1
TOT OBS:	641															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	.6	.6	1.2	.0	.0	.0	.0	2.4	.6	.0	4.2	.0	6.7		.0	86.1
06&09	.5	.5	.5	.0	.0	.0	.0	1.6	1.6	.0	2.6	.0	3.7		.5	89.9
12&15	3.4	1.7	4.0	.0	.0	.0	.0	8.0	.6	.0	5.2	.0	1.1		.0	85.1
18&21	1.2	.0	1.8	.0	.0	.0	.0	3.0	3.6	.0	6.0	.0	1.2		.0	86.3
TOT PCT	1.4	.7	1.9	.0	.0	.0	.0	3.7	1.6	.0	4.5	.0	3.2		.1	86.9
TOT OBS:	696															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	6.5	4.2	.7	.0	.0		11.9	11.2	15.5	11.1	10.7	4.6	14.3	9.6	12.8	4.4
NE	.6	2.9	.7	.0	.0	.0		4.2	7.6	6.4	9.3	4.0	3.9	3.2	.0	3.9	2.5
E	1.1	2.8	2.9	1.7	.2	.0		8.1	13.8	4.9	13.9	6.0	8.1	10.9	16.7	6.4	6.9
SE	.4	4.6	7.1	7.3	2.4	.0		21.8	20.0	17.2	12.0	24.3	22.2	18.7	21.8	29.1	27.5
S	.5	3.4	2.7	1.4	.3	.0		8.3	14.1	5.6	9.7	8.5	12.7	11.5	5.1	5.6	10.5
SW	.4	3.1	4.4	1.8	.6	.0		10.3	16.2	10.0	11.1	8.3	12.0	9.0	5.1	13.0	15.5
W	.8	4.6	7.7	3.0	.1	.0		16.2	14.9	17.7	19.4	20.1	14.8	13.5	19.2	13.6	17.5
NW	.7	6.4	8.2	.6	.1	.0		16.0	12.1	22.6	15.7	16.3	16.2	13.7	17.3	13.4	8.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.5
CALM	3.3							3.3	.0	.0	3.7	1.8	3.6	3.3	5.1	2.3	7.5
TOT OBS	62	252	274	121	27	0	736		14.3	148	27	112	71	170	39	129	40
TOT PCT	8.4	34.2	37.2	16.4	3.7	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.8	6.1	2.2	.0	.0		11.9	11.2	14.9	8.3	13.4	10.8
NE	2.2	1.8	.2	.0	.0		4.2	7.6	6.9	4.0	2.6	3.6
E	2.7	2.2	2.5	.7	.0		8.1	13.8	6.3	6.8	12.0	6.5
SE	1.7	6.6	8.6	4.6	.4		21.8	20.0	16.4	23.5	19.3	28.7
S	2.1	3.3	1.7	1.0	.1		8.3	14.1	5.3	10.1	10.3	6.8
SW	1.9	4.1	3.4	1.3	.0		10.3	16.2	10.1	9.7	8.3	13.5
W	2.2	8.1	4.8	1.1	.0		16.2	14.9	18.0	18.0	14.6	14.5
NW	3.3	9.1	3.4	.2	.0		16.0	12.1	21.6	16.3	14.4	12.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.3						3.3	.0	.6	3.3	3.3	3.6
TOT OBS	166	304	197	65	4	736		14.3	175	183	209	169
TOT PCT	22.6	41.3	26.8	8.8	.5		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	.6	7.4	34.3	37.1	16.6	4.0	.0	14.4	100.0	175
06&09	3.3	4.9	30.6	37.2	19.7	4.4	.0	15.4	100.0	183
12&15	5.3	5.3	34.9	36.8	14.8	2.9	.0	13.3	100.0	209
18&21	3.6	3.0	37.3	37.9	14.8	3.6	.0	14.3	100.0	169
TOT	24	38	252	274	121	27	0	14.3		736
PCT	3.3	5.2	34.2	37.2	16.4	3.7	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.3	1.1	3.5	4.0		5.0
NE	1.4	1.1	.9	.2		3.2
E	2.3	1.0	2.8	.6		3.8
SE	9.9	1.7	3.5	3.3		3.2
S	4.0	2.0	.7	.3		2.6
SW	5.0	2.5	2.9	.6		2.9
W	8.7	3.0	3.9	2.1		3.2
NW	5.2	3.9	6.2	5.0		4.7
VAR	.0	.0	.0	.0		.0
CALM	3.0	.0	.3	.3		1.3
TOT OBS	155	59	89	59	362	3.6
TOT PCT	42.8	16.3	24.6	16.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	1.5	.0	.3	1.0	2.3	.6	.0	.2	.0	.1	6.0	
NE	.0	.0	.0	.0	.1	.0	.3	.3	.0	.1	2.8	
E	.0	.0	.0	.5	.3	.6	.0	.3	.0	.0	5.0	
SE	.0	.0	.6	.9	2.8	.8	.6	.0	.0	.0	12.7	
S	.0	.0	.0	.3	.0	.0	.5	.0	.0	.0	6.2	
SW	.0	.0	.0	.0	1.7	.8	.8	.0	.0	.0	7.6	
W	.3	.0	.3	1.2	1.3	.8	.3	.0	.0	.0	13.6	
NW	1.6	.0	.3	1.7	1.9	1.2	.6	.3	.0	.6	12.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	3.3	
TOT OBS	12	0	5	20	38	17	11	4	0	3	252	362
TOT PCT	3.3	.0	1.4	5.5	10.5	4.7	3.0	1.1	.0	.8	69.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.3	.5	.8	.8	.8	.8	.8	.8
* OR >5000	1.3	1.5	1.8	1.8	1.8	1.8	1.8	1.8
* OR >3500	3.6	4.3	4.6	4.6	4.6	4.6	4.6	4.6
* OR >2000	7.1	9.2	9.4	9.4	9.4	9.4	9.4	9.4
* OR >1000	15.8	19.9	20.7	20.9	20.9	20.9	20.9	20.9
* OR >600	18.9	24.2	25.5	25.8	25.8	25.8	25.8	25.8
* OR >300	19.1	24.7	26.5	26.8	27.0	27.0	27.0	27.0
* OR >150	19.1	24.7	26.5	26.8	27.0	27.0	27.0	27.0
* OR > 0	19.1	25.3	28.1	29.3	29.8	30.1	30.1	30.1
TOTAL	75	99	110	115	117	118	118	118

TOTAL NUMBER OF OBS: 392 PCT FREQ NH <5/8: 69.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
26.1	16.3	11.0	10.8	5.3	4.8	6.2	7.2	9.8 2.6	418

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.3	.2	.1	.0	.2	.3	.0	.0	.0	1.3	
	TOT %	.2	.3	.2	.1	.0	.2	.3	.0	.0	.0	1.3	
1<2	PCP	.3	.0	.0	.0	.0	*	.3	.0	.0	.2	.8	
	NO PCP	.0	.0	.1	*	.0	.2	.0	.2	.0	.0	.5	
	TOT %	.3	.0	.1	*	.0	.2	.3	.2	.0	.2	1.3	
2<5	PCP	.4	.2	.0	.0	.0	.0	.0	.4	.0	.0	.9	
	NO PCP	.8	.1	.2	.8	.1	.0	.2	1.0	.0	.0	3.1	
	TOT %	1.2	.3	.2	.8	.1	.0	.2	1.3	.0	.0	4.1	
5<10	PCP	.4	.0	.0	.2	.2	.3	.1	.2	.0	.0	1.4	
	NO PCP	4.9	1.5	2.5	9.6	3.3	3.7	4.0	3.4	.0	1.1	34.1	
	TOT %	5.4	1.5	2.5	9.8	3.5	4.0	4.1	3.6	.0	1.1	35.5	
10+	PCP	.1	.0	.2	.2	.0	.0	.0	.2	.0	.0	.6	
	NO PCP	4.9	2.3	5.1	11.0	4.9	6.3	10.2	10.3	.0	2.0	57.0	
	TOT %	5.0	2.3	5.2	11.1	4.9	6.3	10.2	10.4	.0	2.0	57.6	
	TOT OBS												639
	TOT PCT	12.2	4.4	8.3	21.8	8.5	10.7	15.1	15.7	.0	3.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.0	.0	*	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3	
1/2<1	0-3	.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.5	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.2	.3	.0	.0		.5	
	22+	.0	.0	.1	.1	.0	.0	.0	.0	.0		.2	
	TOT %	.2	.3	.2	.1	.0	.2	.3	.0	.0	.0	1.2	
1<2	0-3	.0	.0	.0	.0	.0	*	.3	.0	.0	.2	.5	
	4-10	.3	.0	.0	.0	.0	.0	.0	.0	.0		.3	
	11-21	.1	.0	.1	*	.0	.0	.0	.2	.0		.5	
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0		.2	
	TOT %	.4	.0	.1	*	.0	.2	.3	.2	.0	.2	1.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.4	.1	.2	.0	.0	.2	.0	.3	.0		1.1	
	11-21	.8	.2	.0	.2	.1	.0	.0	.9	.0		2.2	
	22+	.0	.0	.0	.6	.0	.0	.2	.2	.0		.9	
	TOT %	1.2	.3	.2	.8	.1	.2	.2	1.3	.0	.0	4.2	
5<10	0-3	.3	.1	.4	.3	.3	*	.2	.6	.0	1.1	3.4	
	4-10	2.1	1.0	1.3	2.0	1.5	1.2	1.1	1.5	.0		11.7	
	11-21	2.1	.4	.2	2.8	1.1	1.6	2.1	1.1	.0		11.4	
	22+	.8	.0	.5	4.6	.6	1.2	.7	.3	.0		8.7	
	TOT %	5.3	1.5	2.5	9.8	3.4	4.0	4.1	3.6	.0	1.1	35.2	
10+	0-3	.3	.2	.5	.2	.3	.4	.5	.1	.0	2.0	4.3	
	4-10	3.1	1.9	1.4	2.8	1.7	2.0	3.1	4.1	.0		19.9	
	11-21	1.7	.2	2.2	4.1	1.8	2.6	4.8	5.8	.0		23.2	
	22+	.0	.0	1.3	3.9	1.1	1.2	2.2	.4	.0		10.2	
	TOT %	5.0	2.3	5.3	11.0	4.9	6.2	10.5	10.4	.0	2.0	57.7	
	TOT OBS												647
	TOT PCT	12.2	4.3	8.3	21.7	8.4	10.7	15.4	15.6	.0	3.2	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.9	.0	1.9	4.7	11.2	4.7	4.7	1.9	.0	1.9	31.8	68.2	107
06&09	.8	.0	.8	4.1	11.6	4.1	1.7	.8	.0	.8	24.8	75.2	121
12&15	7.6	.0	1.3	8.9	5.1	2.5	1.3	.0	.0	.0	26.6	73.4	79
18&21	3.9	.0	1.9	2.9	14.6	6.8	2.9	1.0	.0	.0	34.0	66.0	103
TOT	12	0	6	20	45	19	11	4	0	3	120	290	410
PCT	2.9	.0	1.5	4.9	11.0	4.6	2.7	1.0	.0	.7	29.3	70.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	2.4	.6	3.6	38.2	55.2	165
06&09	.0	.5	1.0	4.2	31.4	62.8	191
12&15	.6	.6	2.8	4.0	36.2	55.9	177
18&21	.6	1.2	.6	4.7	37.9	55.0	169
TOT	2	8	9	29	251	403	702
PCT	.3	1.1	1.3	4.1	35.8	57.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.0	2.9	7.8	25.5	66.7	102
06&09	.8	1.7	10.2	16.1	73.7	118
12&15	8.2	9.6	20.5	9.6	69.9	73
18&21	4.0	5.1	11.1	26.3	62.6	99
TOT	12	17	46	78	268	392
PCT	3.1	4.3	11.7	19.9	68.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.0	.0	.2	.0	1	.2
75/79	.0	.0	.0	.0	.2	.5	.0	.0	4	.7
70/74	.0	.0	.0	.0	.5	1.3	2.9	3.1	43	7.8
65/69	.0	.2	.0	.4	1.4	4.3	7.4	16.1	165	29.8
60/64	.0	.0	.0	.2	2.5	10.1	18.6	19.9	284	51.4
55/59	.0	.0	.0	.0	.7	2.4	3.1	3.4	53	9.6
50/54	.0	.0	.0	.0	.0	.0	.4	.2	3	.5
TOTAL	0	1	0	3	30	103	180	236	553	100.0
PCT	.0	.2	.0	.5	5.4	18.6	32.5	42.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
.1	*	.0	*	.1	.0	.2	.2	.0	.0
2.0	.4	.2	.4	.3	.6	1.5	1.9	.0	.4
5.4	1.4	1.0	4.1	2.2	4.1	4.5	6.6	.0	.5
4.0	1.6	5.1	14.8	4.2	5.8	9.9	4.9	.0	1.1
.2	.2	1.9	4.0	1.4	.4	.5	.4	.0	.5
.0	.0	.0	.1	.4	.0	.0	.0	.0	.0
11.7	3.6	8.3	23.5	8.6	10.9	16.6	14.2	.0	2.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	81	77	73	65	60	59	56	66.1	178
06&09	81	75	72	64	58	54	54	64.5	202
12&15	72	70	68	63	57	55	53	63.0	211
18&21	78	70	68	63	57	55	54	62.8	184
TOT	81	75	71	64	58	55	53	64.0	775

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	.7	8.2	24.6	33.6	32.8	83	134
06&09	.0	.6	7.0	22.9	38.9	30.6	83	157
12&15	.0	.6	5.7	14.0	33.1	46.5	87	157
18&21	.0	1.3	2.0	16.7	24.0	56.0	88	150
TOT	0	5	34	116	194	249	85	598

FEBRUARY

PERIOD: (PRIMARY) 1943-1978
(OVER-ALL) 1871-1978

TABLE 17

AREA 0027 COOK STRAIT (NW)
39.9S 173.5E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
14/16	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
11/13	.0	.0	.0	.6	2.1	.0	.4	.0	15	.0	3.1
9/10	.0	.0	.0	.6	.2	.4	.0	.0	6	.0	1.2
7/8	.0	.0	.6	6.2	.4	.8	.2	.0	40	.2	8.0
6	.0	.0	3.1	.8	.4	.0	.0	.0	21	.2	4.1
5	.0	.0	5.6	1.4	3.1	.2	.0	.0	50	.2	10.1
4	.0	.2	2.7	1.0	2.1	.2	.0	.0	30	.2	6.0
3	.0	.6	3.9	2.5	1.2	.2	.0	.0	41	.0	8.5
2	.0	2.5	2.7	6.0	1.2	.2	.0	.0	61	1.2	11.3
1	.0	.6	2.7	3.5	.8	.0	.0	.0	37	.8	6.8
0	.2	2.7	8.5	6.4	.0	.0	.0	.0	86	1.6	16.1
-1	.2	1.0	2.3	1.2	.2	.0	.0	.0	24	.2	4.7
-2	.2	.2	3.1	1.9	.0	.0	.0	.0	26	.2	5.2
-3	.2	.8	1.0	.6	.0	.0	.0	.0	13	.0	2.7
-4	.4	2.1	1.2	.2	.0	.0	.0	.0	19	.6	3.3
-5	.2	.6	.4	.2	.0	.0	.0	.0	7	.0	1.4
-6	.0	.0	.4	.0	.0	.0	.0	.0	2	.0	.4
-7/-8	.0	.6	.2	.0	.0	.0	.0	.0	4	.0	.8
-9/-10	.0	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	7	58	187	161	57	10	3	2	485	27	458
PCT	1.4	12.0	38.6	33.2	11.8	2.1	.6	.4	100.0	5.6	94.4

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.0	.4	.0	.0	.0	2.4
1-2	.0	3.5	.2	.0	.0	.0	3.7
3-4	.0	1.0	3.9	.7	.0	.0	5.0
5-6	.0	.0	1.1	.0	.0	.0	1.1
7	.0	.2	.4	.2	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.7	5.7	.9	.0	.0	13.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	1.6	.1	.0	.0	.0	1.7
3-4	.0	1.2	.5	.0	.0	.0	1.7
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.2	.0	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.0	.9	.0	.0	.0	4.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.6	.0	.0	.0	.0	1.2
1-2	.2	.2	.0	.0	.0	.0	.4
3-4	.2	.6	1.5	.2	.0	.0	2.5
5-6	.0	.0	.9	.8	.0	.0	1.7
7	.0	.0	.4	.5	.0	.0	.9
8-9	.0	.4	.0	.2	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	1.9	2.7	2.1	.0	.0	7.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	1.2	.5	.0	.0	.0	1.8
1-2	.0	2.4	.9	.0	.0	.0	3.3
3-4	.0	.8	3.3	1.6	.0	.0	5.7
5-6	.0	.2	1.4	2.3	.0	.0	3.9
7	.0	.4	.7	1.5	.2	.0	2.9
8-9	.0	.0	.2	1.4	.7	.0	2.3
10-11	.0	.2	.0	.9	.7	.0	1.8
12	.0	.0	.0	.1	.4	.0	.6
13-16	.0	.0	.0	.2	.8	.4	.0	1.5
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	5.3	7.3	8.6	2.7	.0	24.0

PERIOD: (OVER-ALL) 1963-1978

FEBRUARY

TABLE 18 (CONT)

AREA 0027 COOK STRAIT (NW)
39.9S 173.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.2	.0	.0	.0	1.2
1-2	.2	1.0	1.1	.0	.0	.0	2.2
3-4	.0	1.3	.2	.0	.0	.0	1.5
5-6	.0	.0	.4	.2	.4	.0	1.1
7	.0	.0	.4	.4	.0	.0	.9
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.3	2.2	1.5	.4	.0	7.7

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.4	.1	.0	.0	.0	.8
1-2	.3	.8	1.2	.0	.0	.0	2.3
3-4	.0	.7	1.9	.4	.0	.0	3.0
5-6	.0	.0	.4	.3	.0	.0	.8
7	.0	.4	.3	.6	.1	.0	1.3
8-9	.0	.0	.2	.2	.2	.0	.7
10-11	.0	.0	.0	.2	.4	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.2	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.4	4.0	1.9	1.0	.0	9.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.1	.8	.0	.0	.0	2.3
1-2	.3	1.2	.8	.0	.0	.0	2.4
3-4	.0	.2	2.3	.4	.0	.0	2.9
5-6	.0	.2	2.2	.6	.0	.0	3.0
7	.0	.0	1.2	1.0	.2	.0	2.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.8	7.4	2.6	.2	.0	13.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	1.6	.7	.0	.0	.0	2.8	
1-2	.0	2.1	2.3	.0	.0	.0	4.4	
3-4	.2	1.4	2.6	.3	.0	.0	4.5	
5-6	.0	.7	1.3	.2	.0	.0	2.2	
7	.0	.2	1.0	.2	.0	.0	1.5	
8-9	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.2	.2	.0	.0	.4	
12	.0	.0	.2	.0	.0	.0	.2	
13-16	.0	.0	.2	.0	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.7	6.0	9.8	1.0	.0	.0	16.4	97.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.4	8.9	2.7	.0	.0	.0	16.0	
1-2	1.6	13.1	6.4	.0	.0	.0	21.1	
3-4	.4	7.1	15.3	3.6	.0	.0	26.4	
5-6	.0	1.1	8.0	4.4	.4	.0	14.0	
7	.0	1.3	4.4	4.4	.4	.0	10.7	
8-9	.0	.7	.7	2.0	.9	.0	4.2	
10-11	.0	.2	.4	1.8	1.1	.0	3.6	
12	.0	.0	.2	.7	.4	.0	1.3	
13-16	.0	.0	.4	1.3	.7	.0	2.4	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.4	32.4	38.7	18.2	4.2	.0	100.0	450

PERIOD: (OVER-ALL) 1950-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	6.5	5.9	4.3	3.6	1.6	1.8	.2	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	127	5
6-7	.0	2.2	7.9	7.3	7.7	4.9	3.6	3.0	1.6	.4	.4	.0	.2	.0	.0	.0	.0	.0	.0	199	7
8-9	.0	.2	2.2	2.4	3.6	3.2	3.2	.8	2.6	1.6	.6	.2	.0	.0	.0	.0	.0	.0	.0	103	9
10-11	.0	1.2	.2	.0	1.0	.6	.2	1.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	8
12-13	.0	.0	.6	.2	.4	.2	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	7
>13	.0	.0	.0	.2	.0	.4	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.0	.0	6	18
INDET	4.3	.8	1.0	.4	.0	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	37	3
TOTAL	24	55	90	76	82	56	48	26	28	11	6	1	1	0	0	1	1	0	0	508	7
PCT	4.7	10.9	17.8	15.0	16.2	11.1	9.5	5.1	5.5	2.2	1.2	.2	.2	.0	.0	.2	.2	.0	.0	100.0	

MARCH

PERIOD: (PRIMARY) 1954-1978
(OVER-ALL) 1869-1978

AREA 0027 COOK STRAIT (NW)
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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	4.4	.0	2.8	.0	.0	.0	.0	5.2	1.6	2.0	1.6	.0	4.4	.0	85.1
NE	2.6	.0	2.6	.0	.0	.0	.0	2.6	.0	.0	.0	.0	7.7	.0	89.7
E	.0	1.6	8.5	.0	.0	.0	.0	10.1	4.3	.0	4.3	.0	.0	.0	81.4
SE	2.7	.3	2.7	.0	.0	.0	.0	4.5	2.7	.0	.0	.0	.0	.0	92.8
S	3.0	.0	.0	.0	.0	.0	.0	3.0	3.0	.0	.0	.0	3.0	.0	90.9
SW	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	99.5
W	.0	.0	.8	.0	.0	.0	.0	.8	.6	.0	.4	.0	.8	.0	97.3
NW	.8	.0	4.1	.0	.0	.0	.0	4.6	2.2	.8	1.6	.0	3.0	.0	87.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	.0	15.0	.0	80.0
TOT PCT	1.3	.2	2.5	.0	.0	.0	.0	3.5	1.7	.4	1.2	.0	2.3	.0	91.0
TOT OBS:	320														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00&03	1.4	.7	1.4	.0	.0	.0	.0	2.8	.0	.7	1.4	.0	5.0	.0	90.1
06&09	2.0	.0	6.0	.0	.0	.0	.0	6.7	2.0	.0	.7	.0	.7	.0	89.9
12&15	1.3	.0	2.0	.0	.0	.0	.0	3.3	3.3	.7	1.3	.0	.7	.0	90.7
18&21	2.4	.0	3.2	.0	.0	.0	.0	4.0	.8	.0	.8	.0	2.4	.0	92.0
TOT PCT	1.8	.2	3.2	.0	.0	.0	.0	4.2	1.6	.4	1.1	.0	2.1	.0	90.6
TOT OBS:	565														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.0	5.0	4.4	1.5	.1	.0		11.9	12.1	17.2	12.5	11.0	8.0	8.5	14.5	11.8	14.1
NE	.2	1.9	1.3	.2	.0	.0		3.6	10.7	9.9	5.4	5.8	2.8	3.2	.0	3.8	1.6
E	1.2	3.5	3.1	1.3	.4	.0		9.4	13.3	5.4	11.6	7.5	11.8	13.9	11.8	9.5	12.5
SE	.3	4.3	7.2	3.0	.5	.0		15.3	16.2	10.8	13.4	15.8	22.6	18.3	20.4	11.8	10.2
S	.8	1.9	3.8	1.0	.0	.0		7.4	12.8	4.7	9.8	5.3	9.9	6.7	9.9	6.6	20.5
SW	.6	2.7	3.4	2.9	.2	.0		9.9	16.4	11.0	.9	12.5	4.2	9.3	16.4	12.6	2.3
W	.7	6.8	7.5	6.7	.2	.0		21.8	16.1	23.5	17.0	24.8	12.7	22.2	8.6	30.5	15.6
NW	.9	5.5	8.4	1.9	.2	.0		16.9	13.8	19.2	22.3	15.5	24.1	13.7	18.4	11.8	23.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.7							3.7	.0	4.3	7.1	2.0	3.8	4.2	.0	5.5	.0
TOT OBS	56	189	235	111	9	0	600		14.0	116	28	100	53	142	38	91	32
TOT PCT	9.3	31.5	39.2	18.5	1.5	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.5	6.0	1.6	.8	.0		11.9	12.1	16.3	10.0	9.7	12.4
NE	1.0	2.0	.6	.0	.0		3.6	10.7	4.2	4.7	2.5	3.3
E	2.2	4.8	1.0	1.4	.0		9.4	13.3	6.6	9.0	13.5	7.3
SE	.8	7.5	5.5	1.5	.0		15.3	16.2	11.3	18.1	18.8	11.4
S	1.4	4.1	2.0	.0	.0		7.4	12.8	5.7	6.9	7.4	10.2
SW	1.5	3.5	3.6	1.1	.2		9.9	16.4	9.0	9.6	10.8	10.0
W	3.5	7.8	8.6	1.7	.2		21.8	16.1	22.2	20.6	19.3	26.6
NW	2.7	8.3	5.3	.7	.0		16.9	13.8	19.8	18.5	14.7	14.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.7						3.7	.0	4.9	2.6	3.3	4.1
TOT OBS	122	264	169	43	2	600		14.0	144	193	180	123
TOT PCT	20.3	44.0	28.2	7.2	.3		100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1954-1978
(OVER-ALL) 1869-1978

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.9	2.8	31.9	41.0	17.4	2.1	.0	14.6	100.0	144
06&09	2.6	1.3	31.4	44.4	18.3	2.0	.0	14.7	100.0	153
12&15	3.3	10.6	32.2	32.8	19.4	1.7	.0	13.5	100.0	180
18&21	4.1	7.3	30.1	39.8	18.7	.0	.0	13.2	100.0	123
TOT	22	34	189	235	111	9	0	14.0		600
PCT	3.7	5.7	31.5	39.2	18.5	1.5	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.5	3.7	6.1	2.3		4.8
NE	1.5	.5	1.7	1.5		4.9
E	6.1	.7	2.1	2.2		3.5
SE	5.2	4.1	3.1	1.7		3.7
S	2.4	1.1	.7	1.8		4.0
SW	2.3	1.4	3.4	1.2		4.4
W	4.2	4.8	5.8	1.7		4.4
NW	4.4	2.7	8.1	2.3		4.6
VAR	.0	.0	.0	.0		.0
CALM	3.6	.7	1.3	1.0		3.1
TOT OBS	98	60	99	48	305	4.2
TOT PCT	32.1	19.7	32.5	15.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.0	.0	.2	3.0	.7	.5	.0	.0	.0	9.9	
NE	.0	.0	.0	.0	1.2	.6	.1	.0	.0	.3	3.0	
E	.3	.0	.0	1.3	.9	.7	.2	.0	.0	.0	7.6	
SE	.3	.0	.0	1.0	1.1	1.0	.7	.0	.0	.0	10.1	
S	.0	.0	.0	.7	.0	.6	.2	.0	.0	.0	4.6	
SW	.3	.0	.0	.3	1.1	1.5	.4	.0	.0	.0	4.6	
W	.0	.0	.0	.9	1.7	.6	.0	.6	.0	.0	12.8	
NW	.0	.0	.0	.8	2.8	.7	.5	.4	.0	.0	12.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.3	.0	.0	.3	.3	.0	.0	.0	.0	.0	5.6	
TOT OBS	5	0	0	17	37	19	8	3	0	1	215	305
TOT PCT	1.6	.0	.0	5.6	12.1	6.2	2.6	1.0	.0	.3	70.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.3	.3	.3	.3	.3	.3	.3	.3
= OR >5000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >3500	3.3	3.6	3.9	3.9	3.9	3.9	3.9	3.9
= OR >2000	7.5	9.6	10.1	10.4	10.4	10.4	10.7	10.7
= OR >1000	16.1	22.4	23.0	23.3	23.3	23.3	23.6	23.6
= OR >600	18.5	26.9	29.0	29.3	29.3	29.3	29.6	29.6
= OR >300	18.5	26.9	29.0	29.3	29.3	29.3	29.6	29.6
= OR >150	18.8	27.2	29.3	29.6	29.9	29.9	30.1	30.1
= OR > 0	19.1	28.4	30.4	31.0	31.3	31.3	31.9	31.9
TOTAL	64	95	102	104	105	105	107	107

TOTAL NUMBER OF OBS: 335 PCT FREQ NH <5/8: 68.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
19.2	17.2	15.8	11.7	10.6	5.2	5.4	6.8	11.5	1.1	349

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.2	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4	
1/2<1	PCP	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	NO PCP	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.1	.0	.2	.0	.0	.0	.0	.1	.0	.0	.4	
1<2	PCP	.1	.0	.0	.2	.0	.0	.0	*	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	TOT %	.1	.0	.0	.2	.0	.0	.0	*	.0	.2	.6	
2<5	PCP	.1	.0	.4	.0	.2	.0	.0	.1	.0	.0	.8	
	NO PCP	.3	.0	.6	.2	.0	.1	.7	.2	.0	.0	2.1	
	TOT %	.4	.0	1.0	.2	.2	.1	.7	.3	.0	.0	2.9	
5<10	PCP	.0	.0	.5	.2	.0	.0	.0	.4	.0	.0	1.2	
	NO PCP	2.9	.4	1.1	3.8	2.0	5.3	12.4	5.3	.0	.4	33.5	
	TOT %	2.9	.4	1.6	4.0	2.0	5.3	12.4	5.7	.0	.4	34.6	
10+	PCP	.1	.1	.0	.2	.0	.0	.2	.0	.0	.0	.6	
	NO PCP	8.1	3.3	6.3	9.4	4.2	5.0	9.8	11.3	.0	3.3	60.6	
	TOT %	8.2	3.4	6.3	9.6	4.2	5.0	10.0	11.5	.0	3.3	61.2	
	TOT OBS												570
	TOT PCT	12.0	3.8	9.0	14.0	6.3	10.3	23.0	17.7	.0	3.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	22+	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.1	.0	.0	.0	.0	.0	.0	.1	.0		.2	
	TOT %	.1	.0	.2	.0	.0	.0	.0	.1	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	22+	.1	.0	.0	.0	.0	.0	.0	*	.0		.2	
	TOT %	.1	.0	.0	.4	.0	.0	.0	*	.0	.2	.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.4	.2	.0	.0	.0	.0		.6	
	11-21	.0	.0	.4	.2	.2	.0	.2	.2	.0		1.1	
	22+	.4	.0	.2	.2	.0	.1	.5	.3	.0		1.7	
	TOT %	.4	.0	.9	.6	.2	.1	.6	.5	.0	.0	3.3	
5<10	0-3	.2	.0	.2	.2	.1	.2	.1	.0	.0	.4	1.5	
	4-10	.4	.0	.2	.3	.2	.6	2.5	1.9	.0		6.1	
	11-21	1.7	.3	.6	2.0	.9	1.9	4.4	3.5	.0		15.2	
	22+	.6	*	.6	1.3	.6	2.4	4.9	.6	.0		10.9	
	TOT %	2.8	.4	1.5	3.8	1.9	5.1	11.9	5.9	.0	.4	33.8	
10+	0-3	.9	.2	1.0	.1	.7	.2	.6	.8	.0	3.5	8.2	
	4-10	4.5	1.9	2.2	3.5	1.5	1.9	4.7	4.0	.0		24.3	
	11-21	2.7	1.1	2.1	4.2	1.5	1.8	3.2	5.1	.0		21.7	
	22+	.1	.2	1.0	2.0	.4	.9	1.0	1.1	.0		7.2	
	TOT %	8.2	3.4	6.4	9.8	4.1	4.8	10.1	11.0	.0	3.5	61.4	
	TOT OBS												939
	TOT PCT	11.9	3.8	9.0	14.6	6.2	10.0	22.7	17.7	.0	4.1	100.0	

MARCH

PERIOD: (PRIMARY) 1954-1978
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	.0	4.5	12.4	5.6	2.2	1.1	.0	.0	25.8	74.2	89
06&09	3.2	2.1	.0	8.4	11.6	13.7	1.1	.0	.0	.0	40.0	60.0	95
12&15	1.3	.0	.0	2.6	9.0	1.3	3.8	1.3	.0	1.3	20.5	79.5	78
18&21	2.4	.0	.0	7.1	16.7	4.8	3.6	1.2	.0	.0	35.7	64.3	84
TOT	6	2	0	20	43	23	9	3	0	1	107	239	346
PCT	1.7	.6	.0	5.8	12.4	6.6	2.6	.9	.0	.3	30.9	69.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.7	.0	2.8	37.6	58.9	141
06&09	1.3	.6	1.3	4.5	31.8	60.5	157
12&15	.6	.6	.6	4.4	29.7	63.9	158
18&21	.0	.0	.8	.8	38.3	60.2	128
TOT	3	3	4	19	199	356	584
PCT	.5	.5	.7	3.3	34.1	61.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <30YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	.0	4.5	21.6	73.9	88
06&09	3.2	5.3	17.0	23.4	59.6	94
12&15	1.4	2.9	5.7	17.1	77.1	70
18&21	2.4	2.4	9.6	26.5	63.9	83
TOT	6	9	32	75	228	335
PCT	1.8	2.7	9.6	22.4	68.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.2	.0	.0	.0	.0	.0	1	.2
70/74	.0	.2	.2	.9	.5	1.1	2.8	2.1	31	7.1
65/69	.0	.0	.0	.0	.0	3.0	6.9	15.9	112	25.7
60/64	.0	.0	.0	.2	.5	7.1	19.5	29.7	248	57.0
55/59	.0	.0	.0	.7	.9	1.6	3.0	3.4	42	9.7
50/54	.0	.0	.0	.0	.0	.0	.0	.2	1	.2
TOTAL	0	1	2	5	8	56	140	223	435	100.0
PCT	.0	.2	.5	1.1	1.8	12.9	32.2	51.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
3.5	.3	.0	.7	.2	.3	.4	1.3	.0	.5
3.3	2.1	1.2	3.3	.2	2.0	6.4	6.6	.0	.7
5.4	1.9	5.5	7.6	3.2	6.9	16.9	9.0	.0	.7
.0	.1	1.7	2.5	1.6	2.3	.7	.6	.0	.2
.0	.0	.2	.1	.0	.0	.0	.0	.0	.0
12.2	4.4	8.5	14.2	5.1	11.4	24.4	17.5	.0	2.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	72	72	64	59	54	53	64.7	145
06&09	78	77	70	63	57	55	55	63.6	163
12&15	72	69	67	63	56	55	55	62.8	175
18&21	73	70	68	63	56	55	55	62.7	135
TOT	78	72	70	63	57	55	53	63.3	618

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	2.7	3.6	10.8	35.1	47.7	86	111
06&09	.0	3.0	2.2	14.1	43.0	37.8	86	135
12&15	.0	.7	2.2	16.4	26.9	53.7	88	134
18&21	.0	2.2	1.1	9.7	22.6	64.5	90	93
TOT	0	10	11	62	154	236	87	473

MARCH

PERIOD: (PRIMARY) 1954-1978
(OVER-ALL) 1869-1978

AREA 0027 COOK STRAIT (NW)
40.0S 173.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.5	.0	.0	2	.0	.5
11/13	.0	.0	.0	.8	.5	.0	.0	5	.0	1.3
9/10	.0	.0	.0	1.8	.5	.0	.3	10	.0	2.6
7/8	.0	.0	1.8	2.1	.8	.0	.0	18	.0	4.6
6	.0	.0	4.1	.3	.3	.0	.0	18	.0	4.6
5	.0	.0	6.7	1.0	2.6	.5	.3	43	.0	11.0
4	.0	.5	4.6	3.1	1.0	.0	.0	36	.0	9.2
3	.0	4.4	3.8	1.8	.3	.0	.0	40	.5	9.7
2	.0	1.5	4.6	4.1	.5	.0	.0	42	.0	10.8
1	.0	.8	3.8	2.8	.5	.0	.0	31	.0	7.9
0	.8	1.0	4.9	4.1	1.3	.0	.0	47	.0	12.1
-1	.3	1.0	3.6	1.8	.3	.0	.0	27	.3	6.7
-2	.0	1.8	1.8	.0	.0	.0	.0	14	.3	3.3
-3	.3	2.1	1.3	.3	.0	.0	.0	15	.0	3.8
-4	.5	2.3	1.5	.5	.0	.0	.0	19	.0	4.9
-5	1.0	.3	1.0	.5	.0	.0	.0	12	.0	3.1
-6	.3	.5	.0	.3	.0	.0	.0	4	.0	1.0
-7/-8	.5	.0	.0	.0	.0	.0	.0	2	.0	.5
-9/-10	.5	.8	.0	.0	.0	.0	.0	5	.0	1.3
TOTAL	16	67	170	98	35	2	2	390	4	386
PCT	4.1	17.2	43.6	25.1	9.0	.5	.5	100.0	1.0	99.0

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	N							NE						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	.8	.6	.0	.0	.0	2.5	.3	.3	.8	.0	.0	.0	1.3
1-2	.0	2.7	1.5	.0	.0	.0	4.2	.0	.4	.1	.0	.0	.0	.5
3-4	.0	.5	2.9	.8	.0	.0	3.7	.0	.6	.4	.0	.0	.0	1.0
5-6	.0	.0	.0	.2	.0	.0	.2	.0	.6	.0	.0	.0	.0	.6
7	.0	.2	.2	.5	.0	.0	.9	.0	.1	.4	.4	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	4.2	4.8	1.5	.0	.0	11.5	.3	1.9	1.9	.4	.0	.0	4.4

	E							SE						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.6	.3	.0	.0	.0	1.7	.0	.6	.3	.0	.0	.0	.8
1-2	.0	1.2	1.3	.0	.0	.0	2.5	.4	1.1	.6	.0	.0	.0	2.0
3-4	.0	1.1	.5	.3	.0	.0	1.8	.0	1.6	2.3	.4	.0	.0	4.2
5-6	.0	.0	.0	.8	.0	.0	.8	.0	.0	.4	.6	.0	.0	1.0
7	.0	.0	.2	.5	.0	.0	.7	.0	.3	1.2	1.2	.0	.0	2.7
8-9	.0	.0	.0	.0	.2	.0	.2	.0	.0	.3	.0	.4	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.6	.0	.0	.8
12	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.3	.1	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	2.8	2.3	1.5	.4	.0	8.0	.4	3.5	5.3	3.0	.7	.0	12.9

PERIOD: (OVER-ALL) 1963-1978

MARCH

AREA 0027 COOK STRAIT (NW)
40.0S 173.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5
1-2	.8	.0	.5	.0	.0	.0	1.3
3-4	.0	.9	.5	.7	.0	.0	2.1
5-6	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.2	.2	.0	.0	.4
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	1.4	1.7	1.2	.0	.0	5.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.0	.3	.0	.0	.0	1.6
1-2	.0	.8	.8	.0	.0	.0	1.7
3-4	.0	.7	1.9	1.5	.0	.0	4.1
5-6	.0	.0	1.1	1.8	.0	.0	2.8
7	.0	.0	.4	.4	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.3	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.5	4.5	3.7	.3	.0	11.3

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	3.0	.0	.0	.0	.0	3.5
1-2	.0	3.0	.8	.0	.0	.0	3.8
3-4	.0	2.0	6.5	4.4	.0	.0	13.0
5-6	.0	.3	1.5	2.9	.0	.0	4.6
7	.0	.0	.5	.7	.0	.0	1.2
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.3	.0	.3
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	8.3	9.4	8.6	.3	.0	27.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	2.0	.6	.0	.0	.0	3.0	
1-2	.3	2.6	3.0	.0	.0	.0	5.9	
3-4	.0	1.3	3.5	.1	.0	.0	4.9	
5-6	.0	.0	2.8	.2	.0	.0	3.0	
7	.0	.0	.0	.1	.0	.0	.1	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	6.0	9.9	.4	.0	.0	16.9	97.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.4	8.7	2.8	.0	.0	.0	17.9	
1-2	1.7	11.8	8.7	.0	.0	.0	22.1	
3-4	.0	8.7	17.9	8.1	.0	.0	34.7	
5-6	.0	.8	5.9	6.4	.0	.0	13.2	
7	.0	.6	3.1	3.9	.0	.0	7.6	
8-9	.0	.0	.8	.3	.6	.0	1.7	
10-11	.0	.0	.3	.8	.3	.0	1.4	
12	.0	.0	.0	.3	.3	.0	.6	
13-16	.0	.0	.0	.3	.3	.0	.6	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.3	.0	.3	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.1	30.5	39.5	20.2	1.7	.0	100.0	357

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.3	6.3	7.3	4.8	4.5	1.3	1.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	108	4
6-7	.0	2.5	10.1	10.6	6.3	4.3	1.5	4.0	.5	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	161	6
8-9	.0	.5	2.3	.5	2.8	2.3	2.5	.8	1.3	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	54	8
10-11	.0	1.0	.8	1.8	2.0	.8	.8	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	32	7
12-13	.0	.0	1.8	.8	.5	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	5
>13	.0	.0	.0	.8	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	7
INDET	3.3	.5	1.0	.3	.8	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	2
TOTAL	18	43	92	77	67	35	25	26	7	4	1	0	3	0	0	0	0	0	0	398	6
PCT	4.5	10.8	23.1	19.3	16.8	8.8	6.3	6.5	1.8	1.0	.3	.0	.8	.0	.0	.0	.0	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	4.4	.0	8.3	.0	.0	.0	.0	12.7	2.0	.0	3.9	.0	.0		.0	81.4
NE	4.9	.0	.0	.0	.0	.0	.0	4.9	4.9	.0	.0	.0	.0		.0	90.2
E	4.5	.0	2.5	.0	.0	.0	1.9	8.9	.0	.0	3.8	.0	.0		.0	87.3
SE	.8	1.6	.0	.0	.0	.0	.4	2.9	1.6	.0	4.1	.0	.0		.0	91.4
S	8.5	.0	3.1	.0	.0	.0	.0	11.5	.0	3.1	.0	.0	3.1		.0	82.3
SW	6.7	.0	.4	.0	.0	.0	.0	7.1	3.4	1.7	1.7	.0	1.7		.0	84.5
W	.0	2.2	2.5	.0	.0	.0	.0	4.7	1.4	.0	.0	.0	2.9		.0	90.9
NW	3.7	4.7	2.3	.0	.0	.0	.0	10.7	1.3	.0	.0	.0	1.3		.0	86.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	4.2	.0	.0	.0	.0		.0	95.8
TOT PCT	3.5	1.4	2.3	.0	.0	.0	.2	7.4	1.9	.5	1.6	.0	1.2		.0	87.5
TOT OBS:	431															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.5	1.8	1.8	.0	.0	.0	.0	7.0	2.6	.0	1.8	.0	.0		.0	88.6
06&09	2.7	.0	1.8	.0	.0	.0	.0	4.5	.9	.9	.9	.0	.9		.0	92.0
12&15	4.5	1.5	3.0	.0	.0	.0	.0	9.0	2.3	.8	1.5	.0	2.3		.0	84.2
18&21	2.2	2.2	2.2	.0	.0	.0	1.1	7.6	1.1	.0	2.2	.0	1.1		.0	88.0
TOT PCT	3.3	1.3	2.2	.0	.0	.0	.2	7.1	1.8	.4	1.6	.0	1.1		.0	88.0
TOT OBS:	451															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.4	4.9	4.1	1.2	.2	.2		12.0	13.1	12.6	6.6	13.1	25.7	10.5	2.6	10.1	17.9
NE	.8	2.1	1.9	.1	.0	.0		4.3	9.3	3.7	2.6	4.9	2.8	7.2	2.6	3.1	.0
E	.4	3.4	3.1	1.7	.0	.0		8.5	14.3	9.7	17.1	12.8	6.3	8.6	1.3	5.9	4.8
SE	.4	5.0	6.2	1.8	1.1	.0		14.4	15.8	17.1	19.7	6.7	3.5	18.0	16.4	21.2	.0
S	.8	3.5	2.1	.7	.6	.0		7.7	12.8	9.5	.0	6.4	7.6	3.3	13.8	8.0	23.8
SW	.9	3.4	7.4	1.0	.9	.0		13.6	15.3	14.2	7.9	9.8	11.8	9.9	19.1	20.5	21.4
W	.8	5.0	8.1	2.4	.2	.0		16.4	14.7	13.2	15.8	19.5	16.7	14.9	20.4	20.5	21.4
NW	1.9	5.1	8.1	2.2	.4	.0		17.8	13.8	15.8	19.7	28.4	17.4	20.6	15.8	6.6	10.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.2							5.2	.0	4.2	10.5	2.4	8.3	7.0	7.9	4.2	.0
TOT OBS	60	154	193	53	16	1	477		13.4	95	19	82	36	114	38	72	21
TOT PCT	12.6	32.3	40.5	11.1	3.4	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.6	5.0	2.5	.7	.2		12.0	13.1	11.6	16.9	8.6	11.8
NE	1.8	1.9	.4	.1	.0		4.3	9.3	3.5	4.2	6.1	2.4
E	1.7	3.5	2.8	.5	.0		8.5	14.3	11.0	10.8	6.7	5.6
SE	2.8	5.7	4.0	1.3	.6		14.4	15.8	17.5	5.7	17.6	16.4
S	3.1	2.5	1.4	.3	.4		7.7	12.8	7.9	6.8	5.9	11.6
SW	3.1	4.1	5.3	1.1	.0		13.6	15.3	13.2	10.4	12.2	20.7
W	2.6	6.9	5.9	1.0	.0		16.4	14.7	13.6	15.9	16.3	20.7
NW	3.6	8.1	4.3	1.7	.0		17.8	13.8	16.4	23.0	19.4	7.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.2						5.2	.0	5.3	4.2	7.2	3.2
TOT OBS	131	180	128	32	6	477		13.4	114	118	192	93
TOT PCT	27.5	37.7	26.8	6.7	1.3		100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NM)
40.1S 173.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	5.3	5.3	32.5	39.5	11.4	6.1	.0	14.2	100.0	114
06&09	4.2	6.8	36.4	39.0	11.0	1.7	.8	13.4	100.0	118
12&15	7.2	8.6	30.9	39.5	10.5	3.3	.0	12.6	100.0	152
18&21	3.2	8.6	29.0	45.2	11.8	2.2	.0	13.7	100.0	93
TOT	25	35	134	193	53	16	1	13.4		477
PCT	5.2	7.3	32.3	40.5	11.1	3.4	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.2	.3	4.4	5.7		5.4
NE	2.3	.3	1.1	1.1		3.7
E	2.6	1.4	4.1	1.6		4.8
SE	5.4	.7	3.8	2.8		4.1
S	1.9	1.0	1.7	1.6		4.6
SW	2.3	3.6	6.5	1.1		4.6
W	6.6	3.1	7.0	1.9		3.9
NW	4.5	3.8	5.3	2.7		4.5
VAR	.0	.0	.0	.0		.0
CALM	3.1	1.7	.0	.3		1.6
TOT OBS	92	46	98	59	288	4.3
TOT PCT	31.9	16.0	34.0	18.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.3	.5	2.5	1.9	1.6	.2	.3	.3	.0	5.1	
NE	.0	.0	.0	.8	.4	.3	.3	.0	.0	.0	3.0	
E	.5	.0	.0	1.4	1.3	1.4	.0	.3	.0	.0	5.0	
SE	.2	.3	.0	.8	.4	.8	1.0	.3	.0	.0	8.8	
S	.0	.0	.0	.6	1.1	.6	.0	.0	.0	.0	3.8	
SW	.3	.0	.0	2.2	1.9	.8	.0	.0	.0	.0	8.2	
W	.0	.0	.0	1.4	.7	2.0	1.0	.0	.0	.0	12.7	
NW	.0	.0	.2	2.3	2.3	1.9	.5	.0	.0	.0	9.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	4.9	
TOT OBS	4	2	2	36	29	27	9	3	1	0	175	288
TOT PCT	1.4	.7	.7	12.5	10.1	9.4	3.1	1.0	.3	.0	60.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) ≥ OR >10	≥ OR >5	≥ OR >2	≥ OR >1	≥ OR >1/2	≥ OR >1/4	≥ OR >50YD	≥ OR >0
≥ OR >6500	.3	.3	.3	.3	.3	.3	.3	.3
≥ OR >5000	.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
≥ OR >3500	3.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
≥ OR >2000	10.7	13.1	13.1	13.8	13.8	13.8	13.8	13.8
≥ OR >1000	18.8	23.2	23.8	24.5	24.5	24.5	24.5	24.5
≥ OR >400	26.5	33.6	35.9	36.6	36.6	36.6	36.6	36.6
≥ OR >300	26.5	33.9	36.2	37.2	37.2	37.2	37.2	37.2
≥ OR >150	26.8	34.6	36.9	37.9	37.9	37.9	37.9	37.9
≥ OR > 0	27.2	35.2	37.6	38.6	38.6	38.9	39.3	39.3
TOTAL	81	105	112	115	115	116	117	117

TOTAL NUMBER OF OBS: 298 PCT FREQ NH <5/8: 60.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
15.3	16.2	11.9	10.4	6.7	6.4	9.8	8.3	14.1	.9	327

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.5	
<1/2	NO PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.2	.0	.0	.2	.0	.2	.0	.0	.0	.0	.7	
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	NO PCP	.5	.0	.2	.0	.0	.0	.0	.2	.0	.0	.9	
	TOT %	.5	.0	.2	.0	.0	.0	.0	.2	.0	.0	.9	
	PCP	.2	.0	.0	.0	.2	.0	.0	.1	.0	.0	.5	
1<2	NO PCP	.2	.0	.0	.2	.0	.0	.0	.5	.0	.0	.9	
	TOT %	.4	.0	.0	.2	.2	.0	.0	.5	.0	.0	1.4	
	PCP	.3	.0	.0	.0	.5	.0	.6	.5	.0	.0	1.9	
2<5	NO PCP	.2	.0	.0	.0	.0	.3	.1	.5	.0	.0	1.2	
	TOT %	.4	.0	.0	.0	.5	.3	.7	.9	.0	.0	3.0	
	PCP	.8	.0	.6	.1	.0	.5	.0	1.3	.0	.0	3.2	
5<10	NO PCP	2.8	.9	.9	2.1	1.4	1.5	2.6	2.3	.0	.9	15.5	
	TOT %	3.6	.9	1.6	2.2	1.4	2.0	2.6	3.7	.0	.9	18.8	
	PCP	.0	.2	.2	.3	.2	.3	.2	.0	.0	.0	1.4	
10+	NO PCP	6.6	3.7	7.1	11.1	5.3	11.0	12.5	11.9	.0	4.6	73.8	
	TOT %	6.6	3.9	7.3	11.4	5.5	11.3	12.7	11.9	.0	4.6	75.2	
	TOT OBS												431
	TOT PCT	11.8	4.8	9.1	14.1	7.8	13.8	16.0	17.3	.0	5.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
<1/2	4-10	.0	.0	.0	.2	.0	.2	.0	.0	.0		.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.2	.0	.0	.2	.0	.2	.0	.2	.0	.0	.9	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.2	.0	.2	.0	.0	.0	.0	.0	.0		.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	TOT %	.5	.0	.2	.0	.0	.0	.0	.2	.0	.0	.9	
	0-3	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.2	.0	.0	.0	.2	.0		.5	
	22+	.4	.0	.0	.0	.2	.0	.0	.3	.0		.9	
	TOT %	.4	.0	.0	.2	.2	.0	.0	.7	.0	.0	1.6	
	0-3	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
2<5	4-10	.0	.0	.0	.0	.2	.1	.3	.0	.0		.7	
	11-21	.2	.0	.0	.0	.0	.2	.2	.3	.0		.9	
	22+	.6	.0	.0	.0	.2	.0	.1	.4	.0		1.4	
	TOT %	.8	.0	.0	.0	.5	.3	.7	.9	.0	.0	3.2	
	0-3	.5	.0	.1	.1	.0	.0	.2	.2	.0	.9	2.1	
5<10	4-10	1.1	.6	.3	.6	.9	.3	.6	.3	.0		4.8	
	11-21	2.1	.2	.7	1.2	.4	1.0	1.5	2.1	.0		9.2	
	22+	.1	.1	.4	.3	.1	.6	.2	.9	.0		2.7	
	TOT %	3.8	.9	1.5	2.2	1.4	1.9	2.6	3.6	.0	.9	18.8	
	0-3	1.0	.9	.2	.2	.7	.7	.6	.7	.0	4.6	9.6	
10+	4-10	3.4	1.7	3.1	3.4	2.3	2.6	3.9	4.9	.0		25.4	
	11-21	1.7	1.3	2.5	4.7	1.5	6.4	6.1	5.4	.0		29.5	
	22+	.4	.0	1.4	2.9	.9	1.5	2.2	.7	.0		10.1	
	TOT %	6.5	3.8	7.2	11.3	5.4	11.2	12.9	11.8	.0	4.6	74.6	
	TOT OBS												437
	TOT PCT	12.1	4.7	9.0	13.9	7.4	13.7	16.1	17.5	.0	5.5	100.0	

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.1	1.1	.0	4.7	8.9	11.1	3.3	2.2	.0	.0	34.4	65.6	90
06&09	1.2	1.2	1.2	11.6	14.0	8.1	3.5	1.2	.0	.0	41.9	58.1	86
12&15	1.4	.0	.0	9.9	5.6	9.9	1.4	.0	1.4	.0	29.6	70.4	71
18&21	1.5	.0	1.5	19.1	11.8	5.9	2.9	.0	.0	.0	42.6	57.4	68
TOT	4	2	2	36	32	28	9	3	1	0	117	198	315
PCT	1.3	.6	.6	11.4	10.2	8.9	2.9	1.0	.3	.0	37.1	62.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.8	.0	.9	2.6	14.9	79.8	114
06&09	.9	1.8	.9	3.5	15.9	77.0	113
12&15	.7	.7	2.2	5.1	21.3	69.9	136
18&21	.0	1.1	2.1	1.1	19.1	76.6	94
TOT	4	4	7	15	82	345	457
PCT	.9	.9	1.5	3.3	17.9	75.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.2	2.4	10.6	25.9	63.5	85
06&09	1.2	3.7	19.5	24.4	56.1	82
12&15	1.5	1.5	12.3	20.0	67.7	65
18&21	1.5	3.0	22.7	21.2	56.1	66
TOT	4	8	48	69	181	298
PCT	1.3	2.7	16.1	23.2	60.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.0	.0	.3	1.0	4	1.3
65/69	.0	.3	.0	.3	1.6	1.6	1.6	7.3	40	12.7
60/64	.0	.6	.3	.3	1.6	14.0	20.7	21.3	185	58.9
55/59	.0	.0	.3	1.0	1.6	7.6	7.3	7.6	80	25.5
50/54	.0	.0	.0	.3	.0	.3	.0	1.0	5	1.6
TOTAL	0	3	2	6	15	74	94	120	314	100.0
PCT	.0	1.0	.6	1.9	4.8	23.6	29.9	38.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.3	.2	.1	.0	.0	.0	.4	.0	.0
2.1	.6	1.4	1.5	.6	1.0	2.9	2.5	.0	.0
6.4	2.2	4.5	6.4	2.3	8.4	10.1	15.0	.0	3.5
2.1	1.0	3.2	4.8	2.1	5.2	4.4	1.2	.0	1.6
.0	.3	.3	.3	.0	.0	.0	.3	.0	.3
10.8	4.5	9.6	13.1	5.0	14.6	17.4	19.4	.0	5.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	74	72	68	63	54	48	48	61.8	117
06&09	68	67	66	61	57	51	44	61.4	120
12&15	70	69	64	61	55	51	49	60.2	134
18&21	72	71	66	61	52	48	48	60.6	95
TOT	74	70	66	61	54	50	44	61.0	486

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.7	6.4	29.5	21.8	34.6	80	78
06&09	.0	2.2	1.1	18.9	37.8	40.0	86	90
12&15	.0	1.0	7.1	19.4	32.7	39.8	86	98
18&21	.0	3.2	4.8	31.7	22.2	38.1	82	63
TOT	0	11	16	79	97	126	84	329

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.3	.0	.0	1	.0	.3
11/13	.0	.0	.0	.0	.0	.3	.0	.0	1	.0	.3
9/10	.0	.0	.0	.0	.3	.0	.0	.3	2	.0	.6
7/8	.0	.0	.0	.0	.3	.6	.3	.0	4	.0	1.2
6	.0	.0	.0	.0	.0	.3	.6	.0	3	.0	.9
5	.0	.0	.0	.0	.3	1.8	.0	.0	7	.0	2.1
4	.0	.0	.0	.0	1.2	.9	.6	.0	9	.0	2.6
3	.0	.0	.0	.3	1.8	1.8	.0	.0	13	.0	3.8
2	.0	.0	.0	.3	4.7	1.2	.0	.0	21	.0	6.2
1	.0	.0	.3	2.1	8.5	1.8	.0	.0	43	.3	12.3
0	.0	.0	.0	2.3	11.4	3.5	.0	.0	59	.3	17.0
-1	.0	.0	.3	3.5	5.0	.6	.0	.0	32	.6	8.8
-2	.0	.0	.6	5.9	4.7	.0	.0	.0	38	.0	11.1
-3	.0	.6	.9	4.4	2.3	.0	.0	.0	28	.3	7.9
-4	.0	.0	.9	4.1	1.8	.0	.0	.0	23	.0	6.7
-5	.0	1.2	.9	2.6	3.2	.6	.3	.0	30	.0	8.8
-6	.0	.0	.9	.6	.6	.0	.0	.0	7	.0	2.1
-7/-8	.0	.3	.9	1.8	.9	.0	.0	.0	13	.0	3.8
-9/-10	.3	.0	.6	.3	.0	.0	.0	.0	4	.0	1.2
-11/-13	.0	.6	.0	.0	.0	.0	.0	.0	2	.0	.6
-14/-16	.0	.3	.0	.0	.0	.0	.0	.0	1	.0	.3
TOTAL	1		21		160		6		5		336
		10		96		46		1	341		
PCT	.3	2.9	6.2	28.2	46.9	13.5	1.8	.3	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.2	.4	.0	.0	.0	.0	1.6
1-2	1.1	.8	.8	.0	.0	.0	2.8
3-4	.3	.8	1.2	.4	.0	.0	2.8
5-6	.0	.0	.9	.0	.0	.0	.9
7	.0	.0	.3	.3	.4	.0	1.0
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.4	.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.7	2.1	4.0	.7	.4	.4	10.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.4	.0	.0	.0	.0	1.2
1-2	.2	1.3	.0	.0	.0	.0	1.5
3-4	.1	.2	.8	.0	.0	.0	1.1
5-6	.0	.4	.1	.0	.0	.0	.5
7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	2.4	1.0	.0	.0	.0	4.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.3	1.1	.4	.0	.0	.0	1.9
3-4	.0	1.3	.8	.0	.0	.0	2.2
5-6	.0	.4	1.9	.7	.0	.0	3.0
7	.0	.0	.4	1.9	.0	.0	2.3
8-9	.0	.0	.3	.3	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.5	3.8	3.3	.0	.0	10.9

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	2.2	1.2	.0	.0	.0	3.4
3-4	.0	.2	2.5	.0	.0	.0	2.7
5-6	.0	.4	1.5	2.0	.0	.0	3.9
7	.0	.0	.9	.6	.1	.0	1.6
8-9	.0	.0	.1	.1	.4	.0	.6
10-11	.0	.0	.0	.0	.4	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.4	.0	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	6.3	3.1	.9	.0	14.1

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.3	.7	.0	.0	.0	.0	1.0
3-4	.0	.7	.4	.0	.0	.0	1.1
5-6	.0	.0	1.4	1.0	.0	.0	2.5
7	.0	.3	.3	.0	.3	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.4	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.2	2.2	1.0	.7	.0	6.4

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.9	.0	.0	.0	.0	1.4
1-2	.1	.8	.8	.0	.0	.0	1.7
3-4	.0	.4	1.9	.0	.0	.0	2.3
5-6	.0	.0	3.5	.0	.0	.0	3.5
7	.0	.1	1.6	.0	.0	.0	1.7
8-9	.0	.4	.0	.4	.0	.0	.8
10-11	.0	.0	.4	.0	.1	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	1.2	.0	.0	1.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.7	8.2	1.6	.1	.0	13.3

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.7	.0	.0	.0	.0	1.4
1-2	.0	2.5	1.5	.0	.0	.0	4.0
3-4	.0	1.2	2.2	.8	.0	.0	4.2
5-6	.0	.4	2.7	.4	.0	.0	3.5
7	.0	.0	1.1	.4	.0	.0	1.5
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.0	.4	.3	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.4	.0	.0	.4
17-19	.0	.0	.0	.4	.0	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.8	7.9	2.9	.3	.0	16.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.8	1.2	.0	.0	.0	.0	2.1	
1-2	.8	2.9	1.3	.0	.0	.0	5.0	
3-4	.0	1.2	4.2	.0	.0	.0	5.5	
5-6	.0	.0	1.5	.0	.0	.0	1.5	
7	.0	.0	.9	.9	.4	.0	2.3	
8-9	.0	.0	.0	.4	.4	.0	.8	
10-11	.0	.0	.1	.0	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.6	5.3	8.1	1.3	.8	.0	17.3	93.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	11.1	5.7	.0	.0	.0	.0	16.8	
1-2	2.9	12.3	6.1	.0	.0	.0	21.3	
3-4	.4	6.1	13.9	1.2	.0	.0	21.7	
5-6	.0	1.6	13.5	4.1	.0	.0	19.3	
7	.0	.4	5.7	4.1	1.2	.0	11.5	
8-9	.0	.4	1.2	1.2	.8	.0	3.7	
10-11	.0	.0	.8	.4	.8	.0	2.0	
12	.0	.0	.0	.4	.0	.4	.8	
13-16	.0	.0	.0	2.0	.0	.0	2.0	
17-19	.0	.0	.0	.4	.4	.0	.8	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.3	26.8	41.4	13.9	3.3	.4	100.0	244

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

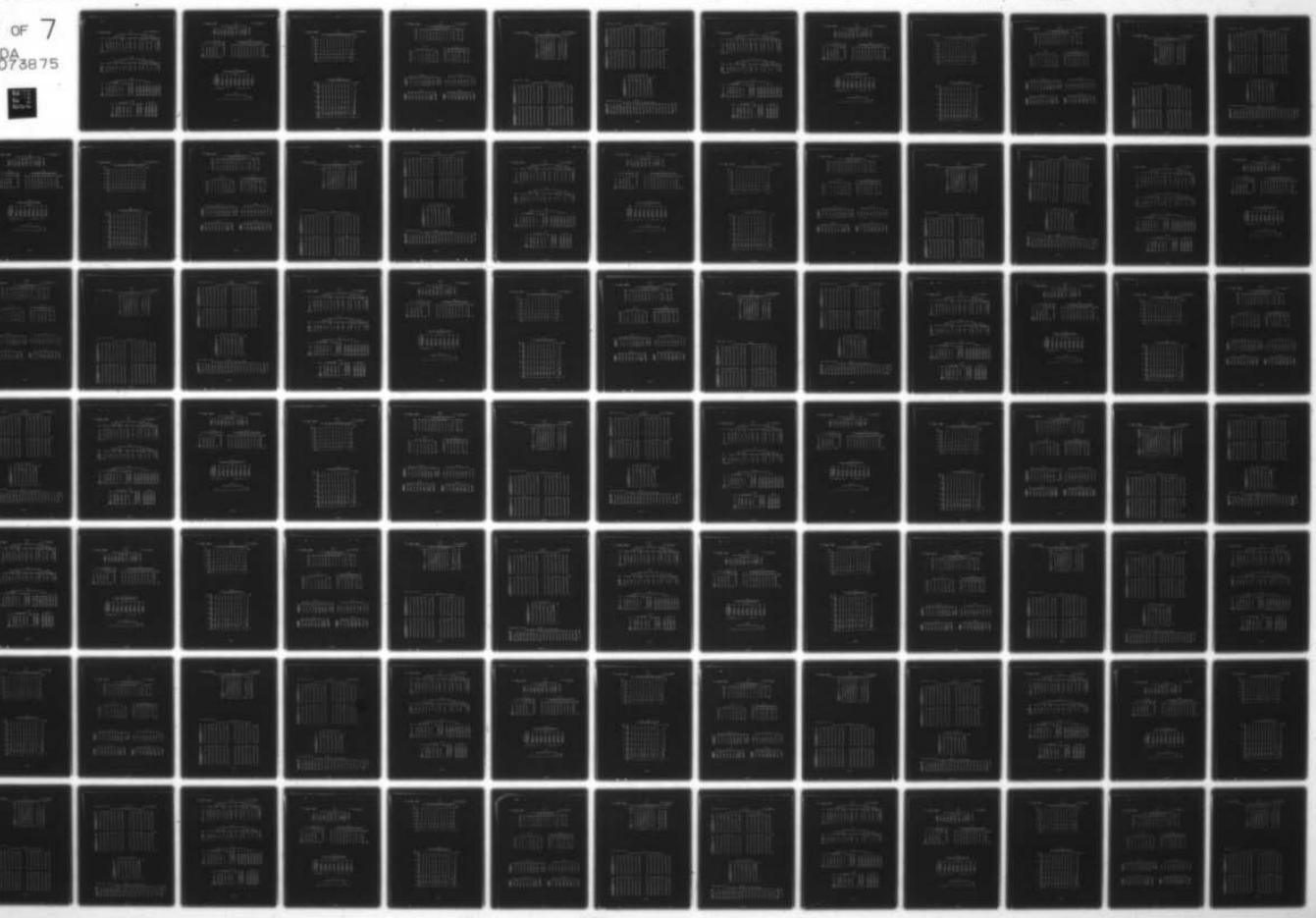
PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

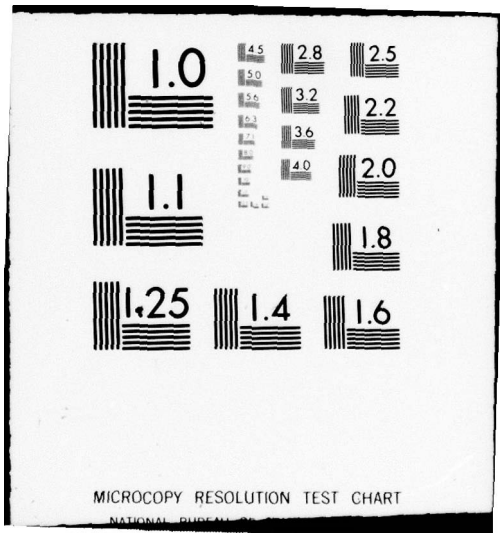
PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.1	9.2	7.3	10.3	5.7	1.1	2.3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	104	4
6-7	.0	1.1	3.4	2.7	5.0	2.3	2.7	.8	1.1	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	32	7
8-9	.0	.4	.4	1.9	.4	5.0	.8	1.9	1.5	.4	.0	.4	.4	.0	.0	.0	.0	.0	.0	36	10
10-11	.0	.8	.8	2.3	2.3	1.9	.8	.4	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	26	7
12-13	.0	.0	1.5	.4	.0	1.1	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	9	7
>13	.0	.0	.0	.4	.4	.8	.4	.0	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	8	11
INDET	6.9	.4	.0	.8	1.1	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	2
TOTAL	26	31	35	49	39	33	19	10	10	3	5	1	1	0	0	0	0	0	0	262	6
PCT	9.9	11.8	13.4	18.7	14.9	12.6	7.3	3.8	3.8	1.1	1.9	.4	.4	.0	.0	.0	.0	.0	.0	100.0	

AD-A073 875 NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO), SELECTE--ETC(U)
SEP 79

UNCLASSIFIED NL

3 OF 7
ADA 073875




1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
6.3
7.1
8.0
9.0
MICROCOPY RESOLUTION TEST CHART

MAY

PERIOD: (PRIMARY) 1949-1977
(OVER-ALL) 1863-1977

AREA 0027 COOK STRAIT (NW)
40.2S 173.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	13.3	4.2	3.6	.0	.0	.0	.0	21.1	.0	4.8	1.8	.0	3.6		.0	68.7
NE	4.6	.0	2.8	.0	.0	.0	.0	7.4	.0	.0	.9	.0	.0		.0	91.7
E	8.1	.0	1.6	.0	.0	.0	.0	9.7	2.2	.0	.0	.0	4.3		.0	83.8
SE	2.6	2.4	1.2	.0	.0	.0	.0	6.2	1.2	.0	2.4	1.2	.0		.0	89.1
S	4.4	2.2	4.4	.0	.0	.0	.0	8.8	6.1	.0	.0	.0	.0		.0	85.1
SW	4.5	3.5	1.4	.0	.0	.0	.0	8.0	2.1	.0	.0	.0	.0		.0	89.9
W	4.9	1.9	.0	.0	.0	.0	.0	6.8	7.9	.0	.9	.0	.0		.0	84.4
NW	6.1	6.1	2.6	.0	.0	.0	.0	13.5	10.6	1.3	.0	.0	.6		.0	75.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
TOT PCT	5.4	2.7	1.7	.0	.0	.0	.0	9.2	4.4	.6	.8	.2	.8		.0	84.2
TOT OBS:	519															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	1.4	2.1	.0	.0	.0	.0	.0	3.6	5.7	.0	.0	.7	.0		.0	90.0
06&09	4.2	1.8	1.8	.0	.0	.0	.0	7.2	4.2	.6	1.8	.0	.6		.0	85.5
12&15	3.4	4.1	2.7	.0	.0	.0	.0	9.5	.0	.7	1.4	.0	1.4		.0	87.1
18&21	13.4	2.5	1.7	.0	.0	.0	.0	16.8	7.6	.8	.0	.0	.8		.0	74.8
TOT PCT	5.2	2.6	1.6	.0	.0	.0	.0	8.9	4.2	.5	.9	.2	.7		.0	84.8
TOT OBS:	572															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.3	3.5	2.3	1.3	.1	.0		7.6	14.2	5.8	8.6	8.2	13.0	8.5	3.2	5.0	11.1
NE	.5	2.7	1.7	.5	.2	.0		5.7	12.1	4.3	9.2	5.3	4.8	4.0	.0	9.2	11.1
E	.3	4.0	2.7	2.0	.0	.0		8.9	13.9	8.0	2.0	14.5	5.3	8.9	14.5	7.3	5.6
SE	.5	4.8	6.6	1.7	1.6	.4		15.6	17.7	19.6	21.1	13.4	12.5	13.8	14.5	15.8	14.8
S	.9	3.8	2.9	1.0	.7	.2		9.5	14.0	11.9	3.3	3.2	15.4	13.4	6.5	10.8	3.7
SW	.9	4.7	4.5	2.0	1.5	.0		13.6	16.2	16.4	3.3	12.4	14.9	13.3	12.9	17.5	7.4
W	.5	6.4	8.1	5.7	.7	.3		21.7	17.2	17.9	36.2	23.5	22.1	20.1	26.6	16.3	31.5
NW	.3	3.4	6.5	2.2	.2	.0		14.5	15.7	19.6	11.2	10.7	10.1	14.2	18.5	13.4	14.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.9							2.9	.0	2.6	5.3	.8	1.9	3.8	3.2	4.7	.0
TOT OBS	44	207	231	102	31	6	621		15.3	116	38	119	52	132	31	106	27
TOT PCT	7.1	33.3	37.2	16.4	5.0	1.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.3	3.3	2.2	.7	.0		7.6	14.2	6.5	9.6	7.5	6.2
NE	1.7	2.8	.8	.3	.2		5.7	12.1	5.5	5.1	3.2	9.6
E	1.8	3.9	2.8	.4	.0		8.9	13.9	6.5	11.7	10.0	7.0
SE	2.7	5.8	4.5	1.4	1.1		15.6	17.7	20.0	13.2	14.0	15.6
S	2.5	4.1	1.8	.7	.4		9.5	14.0	9.7	6.9	12.1	9.4
SW	2.6	5.7	3.4	1.4	.5		13.6	16.2	13.1	13.2	13.2	13.4
W	3.1	7.7	7.7	2.7	.4		21.7	17.2	22.4	23.1	21.3	19.4
NW	1.0	7.1	5.5	.9	.0		14.5	15.7	13.0	16.1	15.0	13.7
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.9						2.9	.0	3.2	1.2	3.7	3.8
TOT OBS	122	252	178	53	16	621		15.3	154	171	163	133
TOT PCT	19.6	40.6	28.7	8.5	2.6		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1949-1977
(OVER-ALL) 1863-1977

AREA 0027 COOK STRAIT (NW)
40.2S 173.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	WIND SPEED (KNOTS) CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.2	5.2	31.2	37.7	14.9	5.2	2.6	16.0	100.0	154
06&09	1.2	1.8	33.3	39.2	18.1	5.8	.6	16.4	100.0	171
12&15	3.7	3.7	38.0	34.4	17.2	3.1	.0	14.1	100.0	163
18&21	3.8	6.8	30.1	37.6	15.0	6.0	.8	14.7	100.0	133
TOT	18	26	207	231	102	31	6	15.3		621
PCT	2.9	4.2	33.3	37.2	16.4	5.0	1.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.6	2.3	1.6	2.0		4.8
NE	.8	1.0	2.5	.9		5.0
E	3.9	2.5	1.6	1.3		3.5
SE	5.6	4.0	6.0	1.8		3.9
S	3.6	1.9	1.3	.3		2.9
SW	4.7	3.9	4.4	.4		3.5
W	6.1	4.1	7.8	3.3		4.3
NW	2.8	2.0	6.9	3.6		5.1
VAR	.0	.0	.0	.0		.0
CALM	1.7	.3	1.1	.3		3.2
TOT OBS	111	79	120	50	360	4.1
TOT PCT	30.8	21.9	33.3	13.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.2	1.6	.8	.5	.3	.0	.0	.0	4.2	
NE	.3	.0	.0	.1	.3	1.3	.1	.0	.0	.6	2.6	
E	.3	.0	.0	.6	.8	.4	.2	.3	.0	.0	6.7	
SE	.0	.0	.0	1.4	1.3	1.7	.6	.0	.0	.0	12.4	
S	.0	.0	.3	.8	.0	.2	.0	.0	.0	.0	5.8	
SW	.3	.3	.1	.9	.6	.8	.6	.3	.0	.0	9.7	
W	.3	.0	1.0	2.8	1.7	2.3	1.0	.0	.0	.0	12.2	
NW	.0	.0	1.5	2.1	.8	3.6	.1	.0	.0	.0	7.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.3	.3	.0	.3	.0	.3	2.2	
TOT OBS	4	1	11	37	24	40	10	3	0	3	227	360
TOT PCT	1.1	.3	3.1	10.3	6.7	11.1	2.8	.8	.0	.8	63.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.8	.8	.8	.8	.8	.8	.8	.8
= OR >5000	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
= OR >3500	4.5	5.1	5.1	5.1	5.1	5.1	5.1	5.1
= OR >2000	13.1	16.2	16.7	16.7	16.7	16.7	16.7	16.7
= OR >1000	17.7	22.0	23.2	23.2	23.2	23.2	23.2	23.2
= OR >600	21.7	29.3	31.8	32.1	32.8	32.8	32.8	32.8
= OR >300	23.2	31.6	34.1	34.8	35.6	35.9	35.9	35.9
= OR >150	23.2	31.8	34.3	35.1	35.9	36.1	36.1	36.1
= OR > 0	23.2	32.6	35.4	36.1	36.9	37.4	37.4	37.4
TOTAL	92	129	140	143	146	148	148	148

TOTAL NUMBER OF OBS: 396 PCT FREQ NH <5/8: 62.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.8	17.2	16.5	12.4	6.8	9.5	9.7	7.5	11.1 .9	442

MAY

PERIOD: (PRIMARY) 1949-1977
(OVER-ALL) 1863-1977

AREA 0027 COOK STRAIT (NW)
40.2S 173.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.4	
1/2<1	PCP	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.2	.0	*	.1	.0	.0	.0	.4	
	TOT %	.0	.0	.0	.4	.0	*	.3	.0	.0	.0	.8	
1<2	PCP	.2	.0	.2	.0	.0	.0	.2	.0	.0	.0	.6	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.2	.0	.0	.0	.2	.0	.0	.0	.6	
2<5	PCP	.3	.0	.2	.0	.2	*	.1	.2	.0	.0	1.2	
	NO PCP	.5	.2	.0	.2	.3	.1	.5	.3	.0	.0	2.1	
	TOT %	.8	.2	.2	.2	.5	.1	.6	.4	.0	.0	3.3	
5<10	PCP	1.0	.4	.5	.4	.4	.9	.5	1.2	.0	.0	5.2	
	NO PCP	2.0	.9	1.1	3.0	1.3	2.5	4.4	3.7	.0	.4	19.1	
	TOT %	3.0	1.3	1.5	3.4	1.6	3.3	4.9	4.9	.0	.4	24.3	
10+	PCP	.1	.0	.0	.4	.0	.2	.2	.6	.0	.0	1.5	
	NO PCP	3.9	3.7	7.0	12.0	6.4	10.2	14.3	9.9	.0	2.9	69.2	
	TOT %	4.0	3.7	7.0	12.4	6.4	10.4	14.5	9.5	.0	2.9	70.7	
	TOT OBS												519
	TOT PCT	8.0	5.2	8.9	16.4	8.7	13.9	20.7	15.0	.0	3.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.2	.0	.0		.2	
	TOT %	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.2	.0	*	.3	.0	.0		.6	
	TOT %	.0	.0	.0	.4	.0	*	.3	.0	.0	.0	.7	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.2	.2	.0		.4	
	22+	.2	.0	.2	.0	.0	.0	.2	.2	.0		.7	
	TOT %	.2	.0	.2	.0	.0	.0	.4	.4	.0	.0	1.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.5	.0	.3	.1	.1	*	.0	.4	.0		1.5	
	11-21	.3	.2	.0	.0	.1	*	.5	.3	.0		1.5	
	22+	.2	.2	.0	.2	.2	*	.9	.2	.0		1.9	
	TOT %	1.0	.4	.3	.3	.5	.1	1.4	.9	.0	.0	4.9	
5<10	0-3	.0	.4	.1	.0	.1	.1	.1	.1	.0	.4	1.3	
	4-10	.5	.5	.6	.4	.3	.8	1.1	.4	.0		4.5	
	11-21	1.5	.2	.7	1.2	.7	.7	1.5	2.9	.0		9.4	
	22+	1.0	.1	.1	1.7	.6	1.5	2.0	1.3	.0		8.4	
	TOT %	2.9	1.2	1.5	3.3	1.6	3.2	4.7	4.7	.0	.4	23.6	
10+	0-3	.4	.2	.2	.3	.3	.0	.3	.2	.0	2.8	5.4	
	4-10	2.6	1.6	3.0	4.2	3.2	4.1	4.6	2.9	.0		26.2	
	11-21	.6	1.3	1.9	5.8	1.9	3.8	5.7	5.2	.0		26.2	
	22+	.3	.5	1.7	1.8	.7	1.9	3.7	.9	.0		11.4	
	TOT %	3.9	3.6	6.8	12.0	6.3	10.3	14.2	9.3	.0	2.8	69.3	
	TOT OBS												534
	TOT PCT	8.0	5.2	8.8	16.0	8.6	13.8	21.2	15.3	.0	3.2	100.0	

MAY

PERIOD: (PRIMARY) 1949-1977
(OVER-ALL) 1863-1977

AREA 0027 COOK STRAIT (NW)
40.2S 173.0E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	3.4	10.2	7.6	11.9	1.7	2.5	.0	1.7	39.0	61.0	118
06&09	1.6	.8	3.2	8.9	5.6	14.5	4.0	.8	.0	.8	40.3	59.7	124
12&15	.0	.0	2.2	4.3	4.3	5.4	3.2	.0	.0	.0	19.4	80.6	93
18&21	3.6	.0	2.4	13.1	7.1	10.7	3.6	.0	.0	.0	40.5	59.5	84
TOT	5	1	12	38	26	46	13	4	0	3	168	271	419
PCT	1.2	.2	2.9	9.1	6.2	11.0	3.1	1.0	.0	.7	35.3	64.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.7	.7	2.1	23.6	72.9	140
06&09	.6	.0	2.4	7.1	24.3	65.7	169
12&15	.6	.6	.0	4.5	21.4	72.7	154
18&21	.0	1.6	2.4	4.8	25.0	66.1	124
TOT	2	4	8	28	138	407	587
PCT	.3	.7	1.4	4.8	23.5	69.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND3+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	4.4	15.8	24.6	59.6	114
06&09	1.7	5.8	18.3	24.2	57.5	120
12&15	.0	2.5	8.8	15.0	76.3	80
18&21	3.7	8.5	19.5	22.0	58.5	82
TOT	5	21	63	87	246	396
PCT	1.3	5.3	15.9	22.0	62.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.3	.8	.3	.0	5	1.3
60/64	.0	.0	.3	.0	2.6	3.9	5.4	10.3	87	22.4
55/59	.0	.3	.3	1.0	5.9	16.8	17.0	18.3	231	59.5
50/54	.0	.0	.0	1.0	2.8	5.2	5.2	2.1	63	16.2
45/49	.0	.0	.0	.3	.0	.0	.3	.0	2	.5
TOTAL	0	1	2	4	45	103	109	119	388	100.0
PCT	.0	.3	.5	2.3	11.6	26.5	28.1	30.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.5	.0	.0	.1	.2	.0	.3	.3	.0	.0
2.4	.9	.5	1.3	.5	2.8	7.4	6.4	.0	.3
4.4	2.6	5.7	10.4	3.8	9.7	13.7	7.8	.0	1.5
.5	.5	2.3	4.8	4.1	1.7	.9	.8	.0	.5
.0	.3	.0	.0	.3	.0	.0	.0	.0	.0
7.8	4.3	8.5	16.6	8.8	14.2	22.2	15.3	.0	2.3

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	68	67	64	58	52	49	48	58.2	197
06&09	67	64	63	58	51	49	43	57.4	188
12&15	68	64	63	57	50	48	45	56.6	174
18&21	63	62	62	57	52	49	47	56.7	135
TOT	68	64	63	57	51	48	43	57.2	694

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	1.8	13.8	27.5	30.3	26.6	81	109
06&09	.0	1.5	13.1	28.5	27.7	29.2	82	130
12&15	.0	3.7	14.0	30.8	19.6	31.8	82	107
18&21	.0	4.6	6.9	25.3	33.3	29.9	83	87
TOT	0	12	53	122	119	127	82	433

MAY

PERIOD: (PRIMARY) 1949-1977
(OVER-ALL) 1863-1977

AREA 0027 COOK STRAIT (NW)
40.2S 173.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.2	.2	.0	2	.0	.5
9/10	.0	.0	.0	.0	.2	.0	1	.0	.2
7/8	.0	.0	.0	.0	.5	.5	4	.0	1.0
6	.0	.0	.0	.0	1.0	.2	5	.0	1.2
5	.0	.0	.0	.5	2.2	.0	11	.0	2.7
4	.0	.0	.2	1.2	2.0	.0	14	.0	3.5
3	.0	.0	.5	2.0	1.2	.2	16	.0	4.0
2	.0	.0	1.0	5.2	3.0	.2	38	.0	9.5
1	.0	.0	1.5	3.0	1.7	.0	25	.0	6.2
0	.0	.2	2.7	10.2	2.7	.2	65	.2	16.0
-1	.0	.7	1.7	2.7	2.2	.0	30	.0	7.5
-2	.0	.0	2.7	5.0	1.2	.0	36	.2	8.7
-3	.0	.0	3.7	2.2	1.2	.0	29	.2	7.0
-4	.0	1.0	4.7	3.0	.2	.0	36	.0	9.0
-5	.0	1.2	3.0	2.5	2.2	.2	37	.0	9.2
-6	.0	.5	1.2	.7	.0	.0	10	.0	2.5
-7/-8	.0	2.5	2.0	1.2	.2	.0	24	.0	6.0
-9/-10	.5	.7	1.0	.5	.0	.0	11	.0	2.7
-11/-13	.5	1.0	.2	.0	.0	.0	7	.0	1.7
TOTAL	4		106		90			3	398
		32		162		7	401		
PCT	1.0	8.0	26.4	40.4	22.4	1.7	100.0	.7	99.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.2	.0	.0	.0	.0	1.5
1-2	.3	1.6	.9	.0	.0	.0	2.8
3-4	.0	1.0	1.0	.3	.0	.0	2.4
5-6	.0	.0	.0	.5	.0	.0	.5
7	.0	.0	.9	.3	.0	.0	1.2
8-9	.0	.0	.0	.5	.0	.0	.5
10-11	.0	.0	.0	.3	.2	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.8	2.8	2.2	.2	.0	9.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.2	.0	.0	.0	.0	.6
1-2	.0	1.0	.6	.0	.0	.0	1.6
3-4	.0	.0	.6	.0	.0	.0	.6
5-6	.0	.0	.3	.1	.0	.0	.4
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.3	.3	.1	.0	.7
12	.0	.0	.0	.0	.3	.0	.3
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	1.3	2.2	.5	.4	.0	4.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.8	.0	.0	.0	.0	2.0
1-2	.3	1.1	1.1	.0	.0	.0	2.5
3-4	.0	.0	.8	.3	.0	.0	1.1
5-6	.0	.0	.5	.2	.0	.0	.7
7	.0	.0	.0	.3	.0	.0	.3
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.9	2.5	1.3	.0	.0	7.2

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.0	.3	.0	.0	.0	1.6
1-2	.0	3.1	2.5	.0	.0	.0	5.5
3-4	.0	.6	3.1	.3	.0	.0	3.9
5-6	.0	.3	2.2	.1	.0	.0	2.6
7	.0	.0	.9	.0	.0	.0	.9
8-9	.0	.0	.3	.4	.0	.0	.7
10-11	.0	.0	.0	.0	.3	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.6	.6	1.2
17-19	.0	.0	.0	.0	.3	.3	.6
20-22	.0	.0	.0	.0	.6	.0	.6
23-25	.0	.0	.0	.0	.3	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.0	9.2	1.0	2.1	.6	18.2

PERIOD: (OVER-ALL) 1963-1977

MAY

AREA 0027 COOK STRAIT (NW)
40.2S 173.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.9	.0	.0	.0	.0	2.2
1-2	.3	1.4	1.2	.0	.0	.0	2.9
3-4	.0	1.1	.9	.0	.0	.0	2.0
5-6	.0	.0	.5	.0	.0	.0	.5
7	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.4	3.1	.0	.0	.0	8.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.1	.0	.0	.0	.0	1.7
1-2	.0	2.4	.6	.0	.0	.0	3.0
3-4	.0	1.9	1.3	.3	.0	.0	3.6
5-6	.0	.0	1.5	.1	.3	.0	1.9
7	.0	.0	.9	.7	.3	.0	1.9
8-9	.0	.0	.0	.4	.3	.0	.7
10-11	.0	.0	.1	.0	.3	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.1	.3	.0	.4
20-22	.0	.0	.3	.0	.3	.0	.6
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.1	.0	.1
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.4	4.8	1.6	2.2	.0	14.5

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.7	.0	.0	.0	.0	1.0
1-2	.0	1.7	1.8	.0	.0	.0	3.5
3-4	.0	1.4	3.3	1.6	.0	.0	6.4
5-6	.0	.0	1.0	1.3	.0	.0	2.4
7	.0	.0	1.0	1.8	.3	.0	3.1
8-9	.0	.0	.5	.2	.0	.0	.7
10-11	.0	.0	.0	.5	.2	.3	1.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.3	.0	.2	.0	.0	.5
20-22	.0	.0	.0	.0	.3	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.2	.0	.2
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.3	.3
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.2	7.7	5.7	1.0	.6	19.4

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.3	.0	.0	.0	.0	1.6
1-2	.0	1.4	1.8	.0	.0	.0	3.2
3-4	.0	.5	3.6	.4	.0	.0	4.6
5-6	.0	.0	1.9	.7	.0	.0	2.6
7	.0	.0	.7	.7	.0	.0	1.5
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.1	.1	.0	.1
12	.0	.0	.3	.0	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.3	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.2	8.5	1.9	.4	.0	14.4

HGT	TOTAL PCT
<1	1.6
1-2	3.2
3-4	4.6
5-6	2.6
7	1.5
8-9	.1
10-11	.1
12	.3
13-16	.0
17-19	.0
20-22	.3
23-25	.0
26-32	.0
33-40	.0
41-48	.0
49-60	.0
61-70	.0
71-86	.0
87+	.0
TOT PCT	96.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.7	9.4	.3	.0	.0	.0	16.4	
1-2	.9	14.6	10.2	.0	.0	.0	25.7	
3-4	.0	6.4	14.6	3.2	.0	.0	24.3	
5-6	.0	.3	7.9	2.9	.3	.0	11.4	
7	.0	.0	5.0	3.8	.6	.0	9.4	
8-9	.0	.0	.9	1.8	.3	.0	2.9	
10-11	.0	.0	.6	1.5	1.2	.3	3.5	
12	.0	.0	.3	.0	.3	.0	.6	
13-16	.0	.0	.0	.6	.9	.3	1.8	
17-19	.0	.3	.0	.3	.6	.3	1.5	
20-22	.0	.0	.3	.0	1.5	.0	1.8	
23-25	.0	.0	.0	.0	.3	.0	.3	
26-32	.0	.0	.0	.0	.3	.0	.3	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.3	.3	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.6	31.0	40.1	14.0	6.1	1.2	100.0	342

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	9.7	12.0	6.5	3.4	1.6	.8	.0	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	134	4
6-7	.0	1.3	2.9	3.7	8.1	2.6	3.7	1.3	1.6	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	99	8
8-9	.0	.8	1.3	2.6	2.3	1.8	2.1	.8	1.6	1.6	2.3	.5	.3	.0	.0	.0	.0	.0	.0	69	11
10-11	.0	.5	.0	.3	.8	.5	.5	.3	.0	.5	.5	.0	.3	.3	.3	.3	.0	.0	.0	19	16
12-13	.0	.0	2.3	.0	.0	.3	.8	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	6
>13	.0	.0	.0	.3	1.0	.3	.5	.0	.0	.3	.5	.3	.0	.0	.0	.0	.0	.0	.0	12	12
INDET	7.0	.3	.5	.0	.0	.8	.0	.0	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	36	2
TOTAL	28	48	73	91	60	30	32	9	16	13	15	3	2	1	1	1	0	0	0	383	7
PCT	7.3	12.5	19.1	13.3	15.7	7.8	8.4	2.3	4.2	3.4	3.9	.8	.5	.3	.3	.3	.0	.0	.0	100.0	

JUNE

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1863-1977

AREA 0027 COOK STRAIT (NW)
40.2S 173.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	13.8	4.6	5.7	.0	.0	.0	.0	24.1	10.9	.0	.0	.0	.0		.0	64.9
NE	14.3	.0	4.1	.0	.0	.0	.0	18.4	.0	.0	2.0	.0	.0		.0	79.6
E	20.9	.0	6.0	.0	.0	.0	.0	24.9	3.5	.0	3.0	.0	.0		.0	68.7
SE	9.0	5.4	1.2	.0	.0	.0	.0	15.6	2.7	.0	1.0	.0	.0		.0	81.3
S	12.1	2.0	4.0	.0	.0	.0	.0	17.0	1.2	.0	.0	.0	.0		.0	81.8
SW	1.8	.4	.4	.0	.0	.0	.0	2.2	5.8	.0	1.5	.0	1.8		.0	88.7
W	1.5	6.0	5.2	.0	.0	.0	.0	12.7	7.5	2.2	.7	.0	1.1		.0	75.7
NW	7.5	2.5	3.8	.0	.0	.0	.0	13.8	4.4	1.9	.6	.0	.0		.0	79.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	8.3	.0	.0	.0	.0	.0	.0	8.3	4.2	.0	.0	.0	.0		.0	87.5
TOT PCT	9.0	2.9	3.3	.0	.0	.0	.0	14.8	4.4	.6	1.0	.0	.4		.0	78.9
TOT OBS:	522															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	11.0	3.4	2.8	.0	.0	.0	.0	16.6	2.8	.0	.7	.0	.0		.0	80.0
06&09	8.2	2.7	4.1	.0	.0	.0	.0	15.0	1.4	.7	.7	.0	.7		.0	81.6
12&15	8.9	3.0	3.7	.0	.0	.0	.0	14.8	4.4	.7	2.2	.0	.7		.0	77.0
18&21	8.0	1.4	2.9	.0	.0	.0	.0	11.6	8.0	.7	2.2	.0	.0		.0	77.5
TOT PCT	9.0	2.7	3.4	.0	.0	.0	.0	14.5	4.1	.5	1.4	.0	.4		.0	79.1
TOT OBS:	565															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.3	2.6	3.6	1.4	.6	.0		8.6	16.4	7.1	6.5	8.8	8.1	6.6	12.1	11.2	9.1
NE	.6	1.7	1.4	.6	.2	*		4.5	12.5	5.0	4.3	3.2	7.0	6.4	.0	3.9	3.4
E	.3	3.8	4.2	1.7	.1	.1		10.3	15.2	9.2	12.0	8.6	15.1	9.0	9.1	8.8	28.4
SE	.0	4.4	7.7	4.6	1.8	.6		19.1	20.7	21.7	23.9	20.6	19.8	17.5	14.4	16.2	20.5
S	.0	3.7	5.1	1.8	.6	.4		11.6	16.9	16.2	6.5	5.4	6.4	10.8	6.8	17.5	8.0
SW	1.1	2.4	6.0	2.0	.8	*		12.4	16.2	9.6	10.9	11.5	9.9	17.0	5.3	16.0	9.1
W	.4	3.1	5.1	3.9	.7	.1		13.4	18.2	9.2	10.9	18.4	18.6	13.9	22.0	10.3	6.8
NW	.5	3.2	7.8	3.1	.5	.1		15.2	16.6	18.1	20.7	14.7	12.8	19.2	27.3	12.5	5.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.1							5.1	.0	3.8	4.3	8.8	2.3	5.7	3.0	3.5	9.1
TOT OBS	48	142	234	110	31	8	573		16.4	130	23	102	43	106	33	114	22
TOT PCT	8.4	24.8	40.8	19.2	5.4	1.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.1	3.4	2.8	1.1	.1		8.6	16.4	7.0	8.6	7.9	10.8
NE	1.7	1.6	1.0	.2	*		4.5	12.5	4.9	4.3	4.9	3.9
E	1.8	4.4	2.7	1.3	.1		10.3	15.2	9.6	10.5	9.0	11.9
SE	1.5	6.2	5.4	4.8	1.1		19.1	20.7	22.1	20.3	16.7	16.9
S	1.5	5.3	3.1	1.3	.4		11.6	16.9	14.7	5.7	9.9	16.0
SW	1.7	5.4	3.7	1.4	.1		12.4	16.2	9.8	11.0	14.2	14.9
W	1.4	4.7	4.7	2.2	.3		13.4	18.2	9.5	18.4	15.8	9.7
NW	2.4	5.5	5.3	1.8	.1		15.2	16.6	18.5	14.1	16.5	11.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.1						5.1	.0	3.9	6.9	5.0	4.4
TOT OBS	105	209	164	81	14	573		16.4	153	145	139	136
TOT PCT	18.3	36.5	28.6	14.1	2.4		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.9	3.3	21.6	49.0	17.6	3.3	1.3	16.2	100.0	153
06&09	6.9	3.4	26.9	37.2	20.7	4.1	.7	15.6	100.0	145
12&15	5.0	4.3	20.9	42.4	18.7	7.2	1.4	16.8	100.0	139
18&21	4.4	2.2	30.1	33.8	19.9	7.4	2.2	17.1	100.0	136
TOT	29	19	142	234	110	31	8	16.4		573
PCT	5.1	3.3	24.8	40.8	19.2	5.4	1.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.3	.5	2.3	3.6		6.1
NE	1.4	.0	1.1	2.0		5.6
E	1.7	.3	2.6	3.4		5.9
SE	4.6	2.9	6.3	5.5		4.9
S	5.5	.7	3.1	3.6		4.2
SW	5.6	3.0	4.1	1.5		3.4
W	4.3	1.3	5.1	1.9		4.4
NW	3.8	1.9	5.8	4.1		5.0
VAR	.0	.0	.0	.0		.0
CALM	2.8	.9	.9	.9		3.3
TOT OBS	109	40	110	92	351	4.7
TOT PCT	31.1	11.4	31.3	26.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.7	.0	.3	1.0	1.0	1.1	.6	.0	.0	.0	2.9	
NE	.9	.3	.0	.4	.3	1.0	.0	.0	.2	.0	1.4	
E	1.1	.3	.0	.7	1.2	.6	.3	.3	.6	.0	3.0	
SE	1.7	.0	.6	1.1	3.0	1.8	.3	.3	.3	.0	10.3	
S	.6	.0	.3	1.7	1.9	.8	.3	.0	.0	.0	7.5	
SW	.3	.0	.4	.8	1.0	.9	.3	.0	.0	.0	10.5	
W	.2	.3	.2	.9	1.5	1.6	.2	.0	.3	.0	7.3	
NW	1.1	.0	.6	1.1	.4	3.7	.4	.0	.0	.0	8.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.3	.6	.0	.0	.0	.0	.0	.0	.3	.0	4.3	
TOT OBS	26	5	8	27	36	40	8	2	6	0	195	351
TOT PCT	6.8	1.4	2.3	7.7	10.3	11.4	2.3	.6	1.7	.0	55.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.5	1.1	1.4	1.4	1.4	1.4	1.4	1.4
= OR >5000	1.1	1.6	1.9	1.9	1.9	1.9	1.9	1.9
= OR >3500	3.0	3.5	4.1	4.3	4.3	4.3	4.3	4.3
= OR >2000	10.9	12.2	14.1	14.9	14.9	14.9	14.9	14.9
= OR >1000	18.8	22.6	25.0	25.8	25.8	25.8	25.8	25.8
= OR >600	22.3	29.3	32.6	33.4	33.4	33.4	33.4	33.4
= OR >300	22.6	30.4	34.2	35.1	35.3	35.3	35.6	35.6
= OR >150	23.1	31.3	35.6	36.4	36.7	36.7	37.0	37.0
= OR > 0	24.5	34.8	40.8	41.8	42.7	42.9	43.5	43.5
TOTAL	90	128	150	154	157	158	160	160

TOTAL NUMBER OF OBS: 368 PCT FREQ NH <5/8: 56.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.8	13.2	13.9	10.1	6.7	7.5	8.9	7.9	15.9	5.5	416

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.1	.2	.2	.0	.2	.0	.0	.0	.0	.8	
	TOT %	.0	.1	.4	.2	.0	.2	.0	.0	.0	.0	1.0	
1/2<1	PCP	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.6	
	NO PCP	.0	.0	.0	.0	.0	*	.2	.1	.0	.0	.4	
	TOT %	.0	.4	.2	.0	.0	*	.2	.1	.0	.0	1.0	
1<2	PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.2	.0	.2	.2	.0	.0	.0	.6	
	TOT %	.0	.0	.0	.4	.0	.2	.2	.0	.0	.0	.8	
2<5	PCP	.5	.2	.9	.N	.6	.0	.2	.7	.0	.0	3.8	
	NO PCP	.2	.0	.2	.4	.1	.2	.0	.R	.0	.4	2.3	
	TOT %	.7	.2	1.1	1.2	.7	.2	.2	1.4	.0	.4	6.1	
5<10	PCP	1.4	.2	.7	1.3	.7	.2	.9	1.0	.0	.0	6.3	
	NO PCP	1.R	.4	1.7	3.1	1.0	1.3	2.6	3.7	.0	.2	15.9	
	TOT %	3.2	.6	2.3	4.5	1.6	1.5	3.5	4.7	.0	.2	22.2	
10+	PCP	.1	.0	.5	.7	.8	.1	.5	.5	.0	.4	3.6	
	NO PCP	4.3	3.3	5.1	12.7	8.7	10.R	8.1	8.6	.0	3.6	65.3	
	TOT %	4.5	3.3	5.7	13.4	9.5	10.9	8.7	9.1	.0	4.0	69.0	
	TOT OBS												522
	TOT PCT	8.3	4.7	9.6	19.7	11.8	13.1	12.8	15.3	.0	4.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.2	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	*	.3	.2	.0	.0	.0	.0	.0		.6	
	TOT %	.0	.1	.4	.2	.0	.2	.0	.0	.0	.0	.9	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	*	.1	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.4	.2	.0	.0	.0	.1	.1	.0		.8	
	TOT %	.0	.4	.2	.0	.0	*	.2	.1	.0	.0	.9	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.2	.0	.2	.2	.0	.0		.6	
	TOT %	.0	.0	.0	.4	.0	.2	.2	.0	.0	.0	.8	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	
	4-10	.2	.0	.2	.2	.2	.0	.0	.2	.0		.9	
	11-21	.3	*	.5	.2	.0	.0	.0	.5	.0		1.5	
	22+	.5	.2	.3	.8	.5	.2	.2	.9	.0		3.6	
	TOT %	.9	.2	1.0	1.2	.7	.2	.2	1.5	.0	.4	6.4	
5<10	0-3	.0	.2	.2	.0	.0	.1	.1	.4	.0	.2	1.1	
	4-10	.4	*	.8	.8	.3	.0	.5	1.0	.0		3.8	
	11-21	1.2	.4	.6	1.9	1.1	1.0	1.1	2.2	.0		9.6	
	22+	1.6	.0	.7	1.7	.4	.4	1.7	1.0	.0		7.6	
	TOT %	3.2	.6	2.3	4.4	1.8	1.5	3.5	4.6	.0	.2	22.1	
10+	0-3	.2	.4	.0	.0	.0	.9	.2	.0	.0	4.0	5.7	
	4-10	2.0	1.6	2.7	3.8	3.3	2.4	2.4	2.2	.0		20.4	
	11-21	2.2	1.1	2.8	5.5	4.2	5.4	4.1	5.3	.0		30.6	
	22+	.2	.2	.0	3.9	1.8	2.1	1.9	2.0	.0		12.1	
	TOT %	4.6	3.3	5.6	13.2	9.4	10.8	8.6	9.5	.0	4.0	68.8	
	TOT OBS												929
	TOT PCT	8.7	4.6	9.5	19.4	11.9	12.9	12.7	15.7	.0	4.5	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.6	1.6	1.6	12.1	8.1	12.9	1.6	.0	.8	.0	40.3	59.7	124
06&09	4.7	.9	1.9	5.7	11.3	9.4	2.8	.0	2.8	.0	39.6	60.4	106
12&15	7.9	2.6	2.6	5.3	11.8	7.9	1.3	1.3	.0	.0	40.8	59.2	76
18&21	15.5	.0	2.4	3.6	10.7	9.5	3.6	1.2	2.4	.0	48.8	51.2	84
TOT	26	5	8	28	40	40	9	2	6	0	164	226	390
PCT	6.7	1.3	2.1	7.2	10.3	10.3	2.3	.5	1.5	.0	42.1	57.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.7	.7	8.8	21.1	68.7	147
06&09	.0	1.3	2.0	5.3	28.0	63.3	150
12&15	2.9	1.4	.0	5.1	21.7	68.8	138
18&21	2.9	.7	.0	5.8	15.8	74.8	139
TOT	8	6	4	36	125	395	574
PCT	1.4	1.0	.7	6.3	21.8	68.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <5LVD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.7	5.0	22.5	20.0	57.5	120
06&09	4.9	7.8	19.4	22.3	58.3	103
12&15	7.4	13.2	20.6	23.5	55.9	68
18&21	15.6	18.2	27.3	26.0	46.8	77
TOT	24	37	82	83	203	368
PCT	6.5	10.1	22.3	22.6	55.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.3	.0	.0	.0	1	.3
60/64	.0	.0	.0	.0	.3	.9	1.2	1.2	12	3.6
55/59	.0	.3	.6	1.5	3.0	11.2	11.8	13.6	139	42.0
50/54	.0	.0	.9	.9	7.3	13.6	13.6	11.5	156	47.1
45/49	.0	.0	.3	.6	1.5	1.8	1.8	.9	23	6.9
TOTAL	0	1	6	8	41	91	94	90	331	100.0
PCT	.0	.3	1.8	2.4	12.4	27.5	28.4	27.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
1.1	.1	.2	.3	.0	.3	.3	1.0	.0	.3
6.6	2.6	3.6	2.3	2.3	6.4	8.8	7.9	.0	1.5
3.1	2.0	7.3	14.1	4.9	3.5	6.4	3.4	.0	2.4
.2	.0	.8	1.5	2.2	1.6	.2	.1	.0	.3
11.0	4.7	11.9	18.2	9.4	12.1	15.8	12.3	.0	4.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	64	63	61	55	48	45	45	55.1	154
06&09	68	65	59	54	50	48	47	54.6	197
12&15	63	61	59	54	46	45	45	53.8	148
18&21	62	61	59	54	47	45	44	53.9	147
TOT	68	63	60	54	48	45	44	54.4	606

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.7	10.0	21.7	35.0	26.7	82	60
06&09	.0	.0	14.4	33.3	27.0	25.2	81	111
12&15	.0	4.9	11.7	19.4	34.0	30.1	82	103
18&21	.0	7.0	9.3	27.9	23.3	32.6	81	86
TOT	0	15	42	94	108	103	82	360

JUNE

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1963-1977

AREA 0027 COOK STRAIT (NW)
40.2S 173.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA	45	49	53	57	61	65	TOT	W	WO
TMP DIF	48	52	56	60	64	68		FOG	FOG
14/16	.0	.0	.0	.0	.3	.0	1	.0	.3
11/13	.0	.0	.0	.3	.0	.0	1	.0	.3
7/8	.0	.0	.0	.3	.8	.0	4	.0	1.1
6	.0	.0	.0	.8	.3	.0	4	.0	1.1
5	.0	.0	.0	1.1	1.6	.0	10	.0	2.7
4	.3	.0	.0	3.8	.5	.0	17	.0	4.6
3	.0	.0	.5	2.7	.5	.0	14	.0	3.8
2	.0	.3	1.6	7.0	.5	.3	36	.0	9.7
1	.0	.0	1.4	3.8	.0	.0	19	.3	4.9
0	.3	1.4	6.8	4.3	.8	.0	50	.5	13.0
-1	.0	.3	5.1	.3	.0	.0	21	.0	5.7
-2	.0	2.2	5.1	1.1	.0	.0	31	.0	8.4
-3	.0	1.4	5.9	.8	.0	.0	30	.3	7.8
-4	.8	2.2	3.8	.3	.0	.0	26	.5	8.5
-5	.0	3.2	1.9	.3	.0	.0	20	.0	5.4
-6	.5	2.7	1.4	.3	.3	.0	19	.0	5.1
-7/-8	.8	3.5	1.6	.3	.0	.0	23	.0	6.2
-9/-10	.3	4.3	.0	.3	.0	.0	18	.0	4.9
-11/-13	4.1	.3	.3	.0	.0	.0	17	.0	4.6
-14/-16	1.6	.3	.3	.0	.0	.0	8	.0	2.2
-17/-19	.0	.3	.0	.0	.0	.0	1	.0	.3
TOTAL	32	82	132	102	21	1	370	6	364
PCT	8.6	22.2	35.7	27.6	5.7	.3	100.0	1.6	98.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.3	.0	.0	.0	1.4
1-2	.0	1.0	.7	.0	.0	.0	1.7
3-4	.0	.0	1.4	.2	.0	.0	1.6
5-6	.0	.0	.7	.7	.2	.0	1.6
7	.0	.0	.5	.3	.5	.0	1.2
8-9	.0	.0	.3	.0	.3	.0	.5
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.2	3.9	1.5	.9	.0	8.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.7	.3	.0	.0	.0	1.3
1-2	.0	.3	.0	.0	.0	.0	.3
3-4	.0	.1	.9	.8	.0	.0	1.8
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.1	.0	.0	.0	.1
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.1	1.6	.9	.0	.0	3.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.5	.0	.0	.0	.0	1.5
1-2	.0	.3	.7	.0	.0	.0	1.0
3-4	.0	.4	.9	.0	.0	.0	1.3
5-6	.0	.0	.7	.2	.0	.0	.9
7	.0	.0	.3	.9	.0	.0	1.1
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.3	.0	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.2	.0	.0	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.2	3.9	1.5	.0	.0	7.2

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.7	.0	.0	.0	.0	2.7
1-2	.0	1.1	3.6	.0	.0	.0	4.7
3-4	.0	.5	1.7	1.3	.0	.0	3.6
5-6	.0	.1	1.3	1.5	.8	.0	3.6
7	.0	.0	.8	.5	.3	.0	1.5
8-9	.0	.0	.1	.3	.3	.0	.6
10-11	.0	.0	.3	.6	.0	.0	.9
12	.0	.0	.3	.3	.3	.3	1.1
13-16	.0	.0	.3	.1	.3	.0	.9
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.4	8.3	4.5	2.2	.3	19.6

PERIOD: (OVER-ALL) 1963-1977 JUNE AREA 0027 COOK STRAIT (NZ) 40.2S 173.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.6	.0	.0	.0	.0	1.6	.8	.3	.8	.0	.0	.0	1.9
1-2	.0	2.6	3.5	.0	.0	.0	6.1	.0	1.1	1.4	.0	.0	.0	2.5
3-4	.0	.3	1.9	.8	.0	.0	3.0	.0	.9	2.2	.3	.0	.0	3.4
5-6	.0	.2	.6	.2	.0	.0	1.0	.3	.0	.8	.5	.3	.0	1.9
7	.0	.0	.0	.5	.5	.0	1.0	.0	.0	.7	.1	.3	.0	1.0
8-9	.0	.0	.0	.3	.0	.0	.3	.0	.0	.6	.8	.0	.0	1.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3
12	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.2	.2	.2	.6	.0	.0	.0	.0	.1	.1	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.7	6.0	2.2	.7	.2	13.8	1.1	2.3	6.5	1.9	1.1	.1	13.0

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.3	.5	.2	.0	.0	.0	1.0	.0	.8	.1	.0	.0	.0	.9	
1-2	.0	1.7	1.5	.0	.0	.0	3.2	.0	2.7	2.5	.0	.0	.0	5.2	
3-4	.0	.7	1.1	2.7	.0	.0	4.6	.0	.3	2.2	.9	.0	.0	3.3	
5-6	.0	.3	1.1	.5	.0	.0	1.9	.0	.0	2.1	1.4	.1	.0	3.6	
7	.0	.0	.7	.5	.0	.0	1.1	.0	.0	.6	.3	.1	.0	1.0	
8-9	.0	.0	.2	.3	.0	.0	.5	.0	.0	.0	.3	.0	.0	.3	
10-11	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.3	.3	.0	.5	
12	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.3	.0	.0	.3	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.3	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	3.3	4.8	4.5	.3	.0	13.1	.0	3.8	7.4	4.0	.4	.0	15.5	94.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.7	9.6	1.6	.0	.0	.0	17.9	
1-2	.0	11.0	13.9	.0	.0	.0	24.9	
3-4	.0	3.2	12.3	7.0	.0	.0	22.5	
5-6	.3	.5	7.5	5.1	1.3	.0	14.7	
7	.0	.0	3.5	2.9	1.6	.0	8.0	
8-9	.0	.0	1.6	1.9	.5	.0	4.0	
10-11	.0	.0	.3	1.9	.5	.0	2.7	
12	.0	.0	.3	1.3	.3	.3	2.1	
13-16	.0	.0	.5	.3	.8	.3	1.9	
17-19	.0	.0	.0	.3	.3	.0	.5	
20-22	.0	.0	.0	.3	.3	.0	.5	
23-25	.0	.0	.3	.0	.0	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.0	24.3	41.7	20.9	5.6	.5	100.0	374

PERIOD: (OVER-ALL) 1953-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.2	12.3	9.1	5.5	4.1	2.2	1.0	1.2	1.7	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	139	5
6-7	.0	.7	5.0	5.3	7.2	3.1	3.8	2.2	4.6	1.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	140	8
8-9	.0	1.0	1.4	1.9	2.2	1.2	2.9	.7	.7	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	56	8
10-11	.0	1.2	.2	.0	.2	1.2	.7	.2	.7	.5	.0	.0	.2	.0	.0	.0	.0	.0	.0	22	9
12-13	.0	.0	.5	.2	.2	.2	.2	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	8
>13	.0	.0	.0	.0	.2	.0	.0	.0	.0	.5	.2	.5	.0	.2	.0	.0	.0	.0	.0	7	20
INDET	4.8	.2	.0	.2	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	1
TOTAL	21	64	68	55	99	34	36	18	34	18	5	2	1	0	0	0	0	0	0	416	7
PCT	5.0	15.4	16.3	13.2	14.2	8.2	8.7	4.3	8.2	4.3	1.2	.5	.2	.2	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	14.0	5.8	2.3	.0	.0	.0	.0	22.2	9.8	.0	1.2	.0	.0		.0	67.8
NE	24.4	2.3	9.2	.0	.0	.0	.0	32.8	9.1	.0	1.5	.0	.0		.0	62.6
E	9.5	4.8	8.2	.0	.0	.0	.0	22.4	2.7	.0	1.4	.0	.0		.0	73.5
SE	8.6	4.9	2.5	.0	.0	.0	.0	16.0	1.5	.0	2.5	.0	1.2		.0	78.7
S	8.6	1.2	.0	.0	.0	.0	.0	9.9	5.8	.0	.0	.0	4.1		.0	80.2
SW	4.7	2.0	.8	.0	.0	.0	.0	7.5	2.4	1.6	.0	.0	.8		.0	87.8
W	2.0	1.0	1.5	.0	.0	.0	.0	4.5	6.3	1.0	.8	.0	.0		.0	87.4
NW	6.3	3.0	1.5	.0	.0	.0	.0	10.8	7.1	.0	1.1	.0	1.5		1.5	78.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	5.9	.0	5.9	.0	.0	.0	.0	5.9	.0	.0	.0	.0	.0		.0	94.1
TOT PCT	8.0	2.8	2.6	.0	.0	.0	.0	13.0	4.6	.4	1.0	.0	1.0		.2	79.8
TOT OBS:	501															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	8.6	5.5	1.6	.0	.0	.0	.0	15.6	8.6	.0	1.6	.0	2.3		.0	71.9
06&09	7.6	1.5	3.0	.0	.0	.0	.0	11.4	2.3	.0	1.5	.0	.0		.0	84.8
12&15	6.1	3.4	1.4	.0	.0	.0	.0	10.8	2.7	1.4	.7	.0	.0		.7	83.8
18&21	9.2	.8	4.2	.0	.0	.0	.0	13.4	5.0	.0	.0	.0	1.7		.0	79.8
TOT PCT	7.8	2.8	2.5	.0	.0	.0	.0	12.7	4.6	.4	.9	.0	.9		.2	80.3
TOT OBS:	527															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	3.1	3.6	1.3	.3	.2		9.1	15.0	9.6	2.3	5.9	11.0	7.1	10.0	9.9	24.1
NE	.3	2.4	2.9	.5	.6	.3		6.6	17.0	9.2	6.8	7.0	4.8	5.9	3.6	7.1	1.9
E	.3	1.6	4.5	1.3	.3	.0		8.1	16.0	10.5	5.7	6.2	1.8	11.4	7.1	7.4	7.4
SE	.9	4.1	6.3	3.4	.5	.2		15.3	16.7	13.9	21.6	20.8	22.4	12.8	14.3	12.5	7.4
S	1.1	5.2	4.2	1.3	.3	.3		12.4	13.6	11.8	3.4	10.1	10.1	15.7	14.3	12.2	16.7
SW	.8	2.3	7.0	2.8	.1	*		13.0	16.3	15.2	15.9	11.8	11.0	13.8	4.3	13.6	7.4
W	1.4	5.4	7.9	3.8	.7	.3		19.5	16.0	16.7	21.6	14.0	27.6	18.3	20.7	22.2	25.0
NW	.5	4.6	5.7	1.8	.3	.0		12.9	15.0	10.7	18.2	17.4	9.6	13.4	20.0	9.9	10.2
VAR	.0	.0	.6	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.1							3.1	.0	2.6	4.5	4.7	1.8	1.6	5.7	3.1	.0
TOT OBS	53	164	237	92	18	8	572		15.2	117	22	89	57	127	35	98	27
TOT PCT	9.3	28.7	41.4	16.1	3.1	1.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.4	3.8	3.2	.4	.2		9.1	15.0	8.5	7.9	7.7	12.0
NE	1.2	3.0	1.0	1.0	.3		6.6	17.0	8.8	6.2	5.4	6.0
E	.9	3.5	3.0	.5	.2		8.1	16.0	9.7	4.5	10.5	7.4
SE	2.4	5.2	5.6	1.7	.4		15.3	16.7	15.1	21.4	13.1	11.4
S	4.3	4.2	2.5	1.0	.3		12.4	13.6	10.4	10.1	15.4	13.2
SW	1.2	5.6	4.6	1.5	*		13.0	16.3	15.3	11.5	11.7	13.8
W	2.5	8.7	5.9	2.1	.3		19.5	16.0	17.4	19.3	18.8	22.8
NW	1.4	6.8	3.3	1.3	.2		12.9	15.0	11.9	14.4	14.8	10.0
VAR	.0	.0	.0	.0	.0				.0	.0	.0	.0
CALM	3.1						3.1	.0	2.9	4.8	2.5	2.4
TOT OBS	106	234	167	54	11	572		15.2	139	146	162	125
TOT PCT	18.5	40.9	29.2	9.4	1.9		100.0		100.0	100.0	100.0	100.0

JULY

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.9	5.0	25.2	41.0	18.0	5.0	2.9	16.7	100.0	139
06&09	4.8	6.8	27.4	39.7	17.1	2.7	1.4	15.0	100.0	146
12&15	2.5	6.2	30.9	43.2	16.0	1.2	.0	14.2	100.0	162
18&21	2.4	6.4	31.2	41.6	12.8	4.0	1.6	15.1	100.0	125
TOT	18	35	164	237	92	18	8	15.2		572
PCT	3.1	6.1	28.7	41.4	16.1	3.1	1.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.7	.8	3.5	3.7		6.3
NE	1.2	.7	2.4	2.9		5.7
E	1.7	.7	3.0	1.4		4.9
SE	4.0	2.7	6.4	2.8		4.7
S	3.0	2.0	4.2	2.4		4.6
SW	3.6	3.7	6.3	1.9		4.5
W	5.2	4.3	7.4	2.1		4.3
NW	2.2	2.2	7.8	1.4		5.1
VAR	.0	.0	.0	.0		.0
CALM	1.7	.3	.6	.0		2.3
TOT OBS	81	60	144	61	346	4.8
TOT PCT	23.4	17.3	41.6	17.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY WGT	TOTAL OBS
N	1.0	.0	.9	.4	3.3	.4	.3	.0	.0	.0	2.2	
NE	.4	.0	.3	.9	1.2	.4	.9	.0	.0	.0	2.7	
E	.0	.3	.3	1.8	.9	.8	.0	.0	.3	.0	2.3	
SE	.6	.0	1.2	2.0	1.8	2.1	.6	.0	.3	.0	7.4	
S	.0	.0	.8	.3	1.7	1.9	.5	.0	.0	.0	4.5	
SW	.1	.0	.0	.1	1.9	3.3	.9	.3	.0	.0	6.3	
W	.2	.0	.9	1.9	1.6	1.6	.3	.0	.0	.3	12.7	
NW	.1	.0	.1	2.4	1.9	1.4	.6	.3	.0	.6	6.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	2.0	
TOT OBS	8	1	14	35	49	43	14	2	2	1	177	346
TOT PCT	2.3	.3	4.0	10.1	14.2	12.4	4.0	.6	.6	.3	51.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >A500	.6	.6	.9	.9	.9	.9	.9	.9
* OR >5000	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
* OR >3500	3.4	5.2	5.5	5.5	5.5	5.5	5.5	5.5
* OR >2000	8.0	14.9	17.2	17.2	17.2	17.2	17.2	17.2
* OR >1000	16.7	26.7	30.7	31.0	31.3	31.3	31.3	31.3
* OR >600	20.7	33.3	39.9	40.5	40.8	41.1	41.1	41.1
* OR >300	22.4	36.8	43.4	44.0	44.3	45.1	45.1	45.1
* OR >150	22.4	36.8	43.4	44.0	44.3	45.1	45.1	45.1
* OR > 0	22.7	37.6	44.8	45.7	46.0	46.8	46.8	46.8
TOTAL	79	131	156	159	160	163	163	163

TOTAL NUMBER OF OBS: 348 PCT FREQ NH <5/8: 53.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.4	9.4	12.7	12.2	7.0	6.0	11.7	15.2	15.3	2.1	385

JULY

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.3	.2	.0	.0	.0	.0	.2	.0	.0	.8	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.3	.2	.0	.0	.0	.0	.2	.0	.0	.8	
1/2<1	PCP	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.1	.1	.0	.2	.2	.0	.0	.0	.0	.6	
	TOT %	.0	.5	.1	.0	.2	.2	.0	.0	.0	.0	1.0	
1<2	PCP	.2	.0	.4	.0	.0	.0	.0	.0	.0	.0	.6	
	NO PCP	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.4	
	TOT %	.2	.0	.4	.2	.0	.0	.2	.0	.0	.0	1.0	
2<5	PCP	.1	.5	.3	1.2	.2	.2	.3	.0	.0	.0	3.0	
	NO PCP	.7	*	.2	.8	.5	.6	1.1	.5	.0	.2	4.8	
	TOT %	.8	.5	.5	2.0	.7	.9	1.4	.5	.0	.2	7.8	
5<10	PCP	.9	.5	.5	.9	.8	.4	.2	.6	.0	.2	5.2	
	NO PCP	2.0	1.7	.8	5.0	2.7	3.1	4.4	2.2	.0	.6	22.6	
	TOT %	2.9	2.2	1.3	6.0	3.5	3.5	4.6	2.8	.0	.8	27.7	
10+	PCP	.5	.4	.1	.4	.1	.2	.3	.6	.0	.0	3.0	
	NO PCP	3.9	2.5	4.6	7.5	7.5	7.8	13.3	9.2	.0	2.4	58.7	
	TOT %	4.4	3.0	4.7	7.9	7.6	8.0	13.6	9.9	.0	2.4	61.7	
	TOT OBS												501
	TOT PCT	8.5	6.5	7.3	16.2	12.1	12.7	19.9	13.4	.0	3.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	22+	.1	.3	.0	.0	.0	.0	.0	.2	.0		.6	
	TOT %	.1	.3	.2	.0	.0	.0	.0	.4	.0	.0	1.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.4	.0	.0	.0	.0	.0	.0	.0		.4	
	11-21	.0	.1	.1	.0	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.2	.2	.0	.0	.0		.4	
	TOT %	.0	.5	.1	.0	.2	.2	.0	.0	.0	.0	1.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.2	.0	.0		.2	
	22+	.2	.0	.2	.2	.0	.0	.0	.0	.0		.6	
	TOT %	.2	.0	.4	.2	.0	.0	.2	.0	.0	.0	1.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.3	.2	.0	.2	.0	.0	.0	.0	.0		.8	
	11-21	.1	.3	.5	.4	.7	.7	1.0	.2	.0		4.2	
	22+	.3	.0	.0	1.4	.0	.4	.4	.2	.0		2.8	
	TOT %	.8	.5	.5	2.0	.7	1.1	1.4	.5	.0	.2	7.9	
5<10	0-3	.2	.2	.0	.2	.1	.5	.8	.0	.0	.8	2.8	
	4-10	.6	.3	.3	1.2	1.7	.7	.7	.4	.0		6.0	
	11-21	1.8	1.0	.5	2.8	1.1	1.6	1.4	1.4	.0		11.9	
	22+	.3	.6	.5	1.7	.5	.7	1.6	.9	.0		6.9	
	TOT %	2.9	2.2	1.3	6.0	3.5	3.5	4.6	2.8	.0	.8	27.6	
10+	0-3	.6	.2	.4	.8	1.2	.4	.8	.4	.0	2.4	7.1	
	4-10	1.9	1.4	.9	2.9	3.6	1.6	4.9	4.5	.0		21.8	
	11-21	1.6	.9	2.7	3.3	2.1	4.3	4.9	4.0	.0		23.8	
	22+	.4	.4	.7	.8	.7	1.7	2.9	1.0	.0		8.7	
	TOT %	4.5	3.0	4.7	7.9	7.6	8.0	13.5	9.9	.0	2.4	61.5	
	TOT OBS												904
	TOT PCT	8.6	6.5	7.3	16.1	12.1	12.8	19.7	13.6	.0	3.4	100.0	

JULY

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NM)
40.1S 173.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NM >4/8) AND OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00&03	2.8	.0	7.5	11.2	15.0	12.1	3.7	.9	.0	.9	54.2	45.8	107
06&09	3.3	1.1	4.3	9.8	12.0	8.7	2.2	.0	.0	.0	61.3	38.7	92
12&15	1.2	.0	.0	9.5	11.9	15.5	3.6	.0	.0	.0	41.7	58.3	84
18&21	1.2	.0	2.3	7.0	15.1	10.5	5.8	1.2	2.3	.0	45.3	54.7	86
TOT	8	1	14	35	50	43	14	2	2	1	170	199	369
PCT	2.2	.3	3.8	9.5	13.6	11.7	3.8	.5	.5	.3	46.1	53.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.6	.8	1.6	5.4	32.6	58.1	129
06&09	.8	.8	.8	9.8	27.1	60.9	133
12&15	.7	1.3	.0	6.7	28.2	63.1	149
18&21	.8	.8	1.7	9.2	21.8	65.5	119
TOT	5	5	5	41	146	328	530
PCT	.9	.9	.9	7.7	27.5	61.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NM >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NM <5/8 AND 5+	TOTAL OBS
00&03	2.9	12.6	28.2	31.1	40.8	103
06&09	2.3	6.9	20.7	21.8	57.5	87
12&15	1.3	3.8	20.5	24.4	55.1	78
18&21	.0	2.5	17.5	28.8	53.8	80
TOT	6	24	77	93	178	348
PCT	1.7	6.9	22.1	26.7	51.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.3	.3	.0	.0	.0	.0	2	.5
60/64	.0	.0	.0	.0	1.0	.3	.3	.3	7	1.8
55/59	.0	.3	1.0	1.3	2.3	4.9	14.2	9.0	128	33.0
50/54	.0	.0	.8	2.6	4.6	10.6	15.7	21.9	218	56.2
45/49	.0	.0	.0	.3	1.3	1.5	1.5	2.8	29	7.5
40/44	.0	.0	.0	.0	.0	.3	.3	.5	4	1.0
TOTAL	0	1	8	17	34	68	124	134	388	100.0
PCT	.0	.3	2.1	4.4	9.3	17.5	32.0	34.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.2	.0	.0	.0	.3	.0	.0	.0
.2	.0	.0	.0	.2	.1	.7	.6	.0	.0
5.2	2.6	2.8	2.2	1.5	3.8	7.9	6.8	.0	.3
2.8	4.2	4.4	10.4	7.5	9.0	10.0	6.4	.0	1.5
.8	.5	.2	1.8	2.1	.8	.0	.5	.0	.8
.0	.0	.0	.0	.7	.1	.0	.0	.0	.3
9.0	7.4	7.5	14.4	12.0	13.8	18.8	14.3	.0	2.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	67	66	61	55	50	48	46	54.8	140
06&09	60	59	58	54	48	48	47	53.4	146
12&15	59	58	57	53	48	45	45	52.6	170
18&21	64	62	58	54	46	41	41	52.9	130
TOT	67	62	59	54	48	45	41	53.4	586

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	12.9	12.9	16.5	28.2	29.4	80	85
06&09	.0	6.3	4.5	16.2	34.2	38.7	84	111
12&15	.0	5.3	8.8	13.3	38.9	33.6	84	113
18&21	.0	3.0	10.9	23.8	23.8	38.6	84	101
TOT	0	27	37	71	130	145	83	410

JULY

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.3	.3	.0	2	.0	.6
9/10	.0	.0	.0	.3	.3	.0	.6	4	.0	1.2
7/8	.0	.0	.0	.3	.9	.6	.0	6	.0	1.8
6	.0	.0	.0	.3	.6	.3	.0	4	.0	1.2
5	.0	.0	.0	.6	.9	.6	.0	7	.0	2.1
4	.0	.3	.0	1.2	1.2	.0	.0	9	.0	2.7
3	.0	.0	.0	.9	.6	.0	.0	5	.0	1.5
2	.0	.3	.0	4.2	3.6	.0	.0	27	.0	8.1
1	.0	.0	.9	4.5	1.2	.0	.0	22	.3	6.3
0	.0	.3	2.1	14.8	.9	.0	.0	60	.3	17.8
-1	.0	.0	2.7	6.6	.6	.0	.0	33	.3	9.6
-2	.3	.9	3.3	6.9	.9	.3	.0	42	.0	12.7
-3	.0	.9	3.6	3.9	.6	.9	.0	31	.3	9.0
-4	.0	.3	3.3	4.2	.0	.0	.0	26	.3	7.5
-5	.0	1.5	3.0	1.5	.0	.0	.0	20	.0	6.0
-6	.0	2.1	1.2	.6	.0	.0	.0	13	.0	3.9
-7/-8	.0	1.5	1.8	.0	.0	.0	.0	11	.0	3.3
-9/-10	.6	.6	.9	.3	.0	.0	.0	8	.0	2.4
-11/-13	.0	.3	.3	.0	.0	.0	.0	2	.0	.6
TOTAL	3		77		42		2		5	327
		30		170		9		332		
PCT	.9	9.0	23.2	51.2	12.7	2.4	.6	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.3	1.6	1.6	.0	.0	.0	3.5
3-4	.3	.9	.8	.9	.0	.0	3.0
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.2	.3	.0	.0	.6
8-9	.0	.0	.2	.0	.2	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.8	3.9	1.2	.2	.0	8.2

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.7	.0	.0	.0	.0	1.5
1-2	.0	2.3	1.4	.0	.0	.0	3.7
3-4	.0	.3	.3	.0	.0	.0	.7
5-6	.0	.3	.1	.7	.0	.0	1.1
7	.0	.0	.7	.3	.0	.0	1.1
8-9	.0	.0	.1	.0	.1	.0	.2
10-11	.0	.0	.0	.0	.1	.0	.1
12	.0	.3	.0	.0	.3	.0	.7
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.0	2.7	1.0	.4	.0	9.1

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.7	.0	.0	.0	.0	1.0
1-2	.0	.9	.3	.0	.0	.0	1.2
3-4	.3	.3	.9	.0	.0	.0	1.6
5-6	.0	.0	1.5	.0	.0	.0	1.5
7	.0	.0	.5	.3	.0	.0	.8
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.7	.0	.6	.0	1.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	1.9	4.2	.6	.6	.0	7.9

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.6	.3	.0	.0	.0	1.6
1-2	.0	1.2	1.1	.0	.0	.0	2.2
3-4	.0	1.0	3.2	.7	.0	.0	4.9
5-6	.0	.0	1.2	.7	.0	.0	1.8
7	.0	.0	2.2	1.3	.0	.0	3.5
8-9	.0	.1	.0	.0	.0	.0	.1
10-11	.0	.0	.3	.3	.3	.0	1.0
12	.0	.0	.0	.0	.3	.0	.3
13-16	.0	.0	.0	.4	.3	.0	.7
17-19	.0	.0	.0	.3	.0	.0	.3
20-22	.0	.0	.3	.0	.0	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.3	.3
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.8	8.6	3.8	1.0	.3	17.2

PERIOD: (OVER-ALL) 1963-1977 JULY AREA 0027 COOK STRAIT (NW)

TABLE 18 (CONT) 40.1S 173.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.4	.0	.0	.0	.0	1.4
1-2	.3	1.4	.6	.0	.0	.0	2.3
3-4	.7	.7	.2	.2	.0	.0	1.8
5-6	.0	.0	1.7	.7	.0	.0	2.3
7	.0	.2	1.5	.3	.0	.0	2.1
8-9	.0	.2	.7	.0	.0	.0	.9
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	4.0	4.7	1.2	.0	.0	10.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.3	1.0	.7	.0	.0	.0	2.1
3-4	.3	.7	3.1	.0	.0	.0	4.1
5-6	.0	.3	2.3	.7	.0	.0	3.4
7	.0	.1	1.5	.0	.0	.0	1.6
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.3	1.0	.0	.1	1.4
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.3	.0	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.4	8.0	2.6	.0	.1	13.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.0	.8	.0	.0	.0	1.5
1-2	.0	3.6	2.8	.0	.0	.0	6.4
3-4	.0	.7	1.6	.3	.0	.0	2.6
5-6	.0	.0	.9	1.2	.0	.0	2.2
7	.0	.0	.9	.3	.0	.0	1.2
8-9	.0	.3	.3	.0	.0	.0	.7
10-11	.0	.0	.2	.2	.0	.2	.7
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.2	.3	.3	.0	.9
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.6	7.9	3.0	.3	.2	16.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.3	.8	.0	.0	.0	2.2	
1-2	.0	3.3	1.4	.0	.0	.0	4.7	
3-4	.0	.1	1.8	.4	.0	.0	2.3	
5-6	.0	.0	1.7	.3	.0	.0	2.0	
7	.0	.0	.1	.0	.0	.0	.1	
8-9	.0	.0	.1	.7	.0	.0	.7	
10-11	.0	.0	.1	.7	.0	.0	.8	
12	.0	.0	.0	.3	.0	.0	.3	
13-16	.0	.0	.1	.0	.0	.0	.1	
17-19	.0	.0	.0	.3	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	4.7	6.1	2.8	.0	.0	13.6	97.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.0	5.3	2.0	.0	.0	.0	12.3	
1-2	1.0	15.6	9.9	.0	.0	.0	26.5	
3-4	1.7	4.6	11.9	2.6	.0	.0	20.9	
5-6	.0	.7	9.6	4.3	.0	.0	14.6	
7	.0	.3	7.6	3.0	.0	.0	10.9	
8-9	.0	.7	1.7	1.0	.3	.0	3.6	
10-11	.0	.0	1.7	2.3	1.0	.3	5.3	
12	.0	.3	.0	.7	.7	.0	1.7	
13-16	.0	.0	.3	1.0	1.0	.0	2.3	
17-19	.0	.0	.0	1.0	.0	.0	1.0	
20-22	.0	.0	.3	.3	.0	.0	.7	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.3	.3	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								302
TOT PCT	7.6	27.5	45.0	16.2	3.0	.7	100.0	

PERIOD: (OVER-ALL) 1950-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	8.5	12.2	9.1	7.3	4.3	3.4	.6	2.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	162	5
6-7	.6	1.2	1.2	3.4	7.0	3.7	4.0	1.2	1.5	1.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	82	8
8-9	.0	.3	1.5	.3	2.7	.9	1.8	.9	1.2	1.5	.3	.0	.6	.0	.0	.0	.0	.0	.0	45	10
10-11	.0	1.3	1.2	.0	.0	.9	.3	.3	1.2	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	19	8
12-13	.0	.0	.3	.3	.3	.3	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	8	11
>13	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	13
INDET	2.4	.3	.6	.0	.3	.3	.3	.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	4
TOTAL	12	39	56	43	58	34	32	12	25	11	2	1	3	0	0	0	0	0	0	328	7
PCT	3.7	11.9	17.1	13.1	17.7	10.4	9.8	3.7	7.6	3.4	.6	.3	.9	.0	.0	.0	.0	.0	.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1950-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	5.9	4.9	2.0	.0	.0	.0	.0	12.7	8.8	.0	.0	.0	2.9		.0	75.5
NE	10.2	2.4	3.6	.0	.0	.0	.0	16.3	6.0	.0	.0	.0	.6		.0	77.1
E	7.6	1.0	5.1	.0	.0	.0	.0	11.6	.0	.0	.0	.0	.0		.0	88.4
SE	4.6	2.6	5.1	.0	.0	.0	.0	11.2	5.1	.0	.0	.0	.0		.0	83.7
S	4.3	.0	2.8	.0	.0	.0	.0	7.1	2.8	.0	.0	.0	.0		.0	90.1
SW	5.3	2.0	.0	.0	.0	.0	.0	7.2	.0	.0	.0	.0	.0		.0	92.8
W	.7	3.1	1.4	.0	.0	.0	.0	5.2	2.8	.0	.0	.0	1.4		.0	90.7
NW	6.3	2.7	.0	.0	.0	.0	.0	9.0	3.4	.0	.0	.0	2.3		.0	85.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	5.3	.0	.0	.0	.0	5.3	5.3	.0	.0	.0	.0		.0	89.5
TOT PCT	5.0	2.4	2.8	.0	.0	.0	.0	9.8	3.9	.0	.0	.0	.9		.0	85.4
TOT OBS:	460															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	3.2	1.6	2.4	.0	.0	.0	.0	7.1	3.2	.0	.0	.0	1.6		.0	88.1
06609	6.5	3.2	2.4	.0	.0	.0	.0	11.3	4.0	.0	.0	.0	2.4		.0	82.3
12615	4.8	4.1	4.8	.0	.0	.0	.0	11.0	4.8	.0	.0	.0	.0		.0	84.2
18621	6.1	2.4	1.2	.0	.0	.0	.0	9.8	2.4	.0	.0	.0	.0		.0	87.8
TOT PCT	5.0	2.3	2.9	.0	.0	.0	.0	9.8	3.8	.0	.0	.0	1.0		.0	85.4
TOT OBS:	478															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	2.1	5.9	1.6	.6	.0		10.8	16.4	12.1	10.6	12.6	5.1	9.0	7.6	13.1	14.7
NE	.7	2.6	3.5	.9	.8	.0		8.6	15.0	8.4	15.0	9.0	1.5	7.5	5.4	10.3	16.7
E	.6	4.1	4.0	1.6	.2	.0		10.4	13.7	11.1	3.8	14.6	22.8	8.3	6.7	8.7	7.1
SE	.3	3.5	9.2	6.1	2.3	.2		21.6	20.0	22.9	18.8	19.9	16.2	21.4	30.4	20.2	21.4
S	.6	2.7	2.9	1.1	.2	.2		7.7	15.0	5.5	5.0	8.5	11.8	9.0	9.4	6.7	3.6
SW	.9	1.7	5.8	.5	.0	.0		8.9	13.4	10.8	6.9	6.8	10.3	11.8	4.9	11.1	1.2
W	1.1	3.8	7.2	2.4	.6	.0		15.1	14.6	12.4	12.5	10.9	14.9	17.9	16.5	17.1	23.8
NW	.6	2.7	7.1	1.4	.1	.0		12.1	14.8	11.3	25.0	12.9	9.6	12.6	12.1	6.3	4.8
VAR	.0	.0	.6	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.7							4.7	.0	5.3	2.5	4.9	5.9	2.6	7.1	6.3	4.8
TOT OBS	54	124	241	83	25	2	529		15.2	95	40	103	34	117	56	63	21
TOT PCT	10.2	23.4	45.6	15.7	4.7	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.0	4.8	4.2	.4	.4		10.8	16.4	11.7	10.8	8.5	14.0
NE	1.8	3.8	2.1	.9	.0		8.6	15.0	10.4	7.1	6.8	11.9
E	2.4	4.5	3.1	.5	.0		10.4	13.7	8.9	16.6	7.8	8.3
SE	1.8	5.9	9.3	4.3	.4		21.6	20.0	21.7	19.0	24.3	20.5
S	1.8	3.4	1.7	.5	.2		7.7	15.0	5.4	9.3	9.1	6.0
SW	2.1	3.6	2.9	.3	.0		8.9	13.4	9.6	7.7	9.5	8.6
W	3.6	5.6	4.7	1.2	.0		15.1	14.6	12.6	12.4	17.5	18.8
NW	.9	6.9	3.7	.4	.1		12.1	14.8	15.4	12.0	12.4	6.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.7						4.7	.0	4.4	5.1	4.0	6.0
TOT OBS	107	203	168	45	6	529		15.2	135	137	173	84
TOT PCT	20.2	38.4	31.8	8.5	1.1		100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1950-1977
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.4	6.7	18.5	51.1	12.6	5.9	.7	15.9	100.0	135
06&09	5.1	4.4	22.6	49.6	10.9	6.6	.7	15.5	100.0	137
12&15	4.0	3.5	26.9	39.9	22.0	1.7	.0	14.5	100.0	173
18&21	6.0	9.5	21.4	41.7	15.5	6.0	.0	14.8	100.0	84
TOT	25	29	124	241	83	25	2	15.2		529
PCT	4.7	5.5	23.4	45.6	15.7	4.7	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.1	1.4	3.8	5.4		6.3
NE	.2	1.2	3.6	4.4		6.7
E	4.1	.8	2.0	3.5		4.6
SE	6.6	2.0	8.6	6.7		5.1
S	2.8	.7	1.8	1.8		4.3
SW	2.2	2.1	2.9	.8		4.0
W	4.9	4.3	3.5	2.1		3.6
NW	3.9	.6	4.0	2.1		4.5
VAR	.0	.0	.0	.0		.0
CALM	1.5	.3	1.5	.9		4.2
TOT OBS	89	44	103	90	326	4.9
TOT PCT	27.3	13.5	31.6	27.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.0	1.2	1.9	3.1	.3	.7	.0	.0	.0	4.5	
NE	.0	.3	1.8	1.5	1.1	1.2	.5	.0	.0	.0	3.1	
E	.3	.6	.9	.9	.8	.2	.5	.0	.0	.0	4.4	
SE	1.6	.0	.4	2.4	3.2	2.3	1.6	.4	.3	.0	11.4	
S	.2	.0	.0	1.1	.5	.5	.0	.2	.0	.0	4.4	
SW	.0	.0	.0	.8	.6	.9	.3	.1	.0	.0	5.4	
W	.0	.0	.5	1.6	.9	1.2	.3	.0	.0	.0	10.2	
NW	.0	.0	.4	1.1	.8	1.3	1.0	.0	.0	.0	6.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.3	.3	.6	.6	.0	.0	.0	.0	2.5	
TOT OBS	8	3	18	35	38	28	16	3	1	0	176	326
TOT PCT	2.5	.9	5.5	10.7	11.7	8.6	4.9	.9	.3	.0	54.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.3	.3	.3	.3	.3	.3	.3	.3
= OR >5000	.3	.9	.9	.9	.9	.9	.9	.9
= OR >3500	4.2	5.7	5.7	6.0	6.0	6.0	6.0	6.0
= OR >2000	7.5	14.1	14.1	14.7	14.7	14.7	14.7	14.7
= OR >1000	17.1	24.3	25.7	26.3	26.3	26.3	26.3	26.3
= OR >600	24.3	34.1	36.2	36.8	36.8	36.8	36.8	36.8
= OR >300	26.0	37.4	41.3	42.2	42.2	42.2	42.2	42.2
= OR >150	26.0	37.7	41.6	42.5	43.1	43.1	43.1	43.1
= OR > 0	26.6	38.9	43.7	44.6	45.2	45.2	45.2	45.2
TOTAL	99	130	146	149	151	151	151	151

TOTAL NUMBER OF OBS: 334 PCT FREQ NH <5/8: 54.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.6	11.9	10.5	10.0	9.7	4.6	8.9	11.1	20.2	1.6	371

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.4	
1<2	PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.2	.0	.2	.0	.0	.4	
	TOT %	.2	.0	.0	.0	.0	.2	.0	.2	.0	.0	.7	
2<5	PCP	.4	.5	.2	1.1	.0	.0	.3	.1	.0	.0	2.6	
	NO PCP	.7	.4	.2	.7	.0	.2	.0	.0	.0	.0	2.2	
	TOT %	1.1	.9	.3	1.7	.0	.2	.3	.1	.0	.0	4.8	
5<10	PCP	.9	.5	.7	.9	.3	.2	.2	.9	.0	.0	3.9	
	NO PCP	2.1	2.5	1.1	4.8	1.5	2.6	2.1	1.9	.0	.7	19.2	
	TOT %	2.8	3.0	1.7	5.7	1.8	2.8	2.3	2.8	.0	.7	23.1	
10+	PCP	.4	.2	.2	.4	.2	.4	.3	.2	.0	.2	2.6	
	NO PCP	6.9	4.7	8.3	13.2	5.7	4.6	12.9	8.9	.0	3.3	68.4	
	TOT %	7.3	4.9	8.5	13.7	5.9	5.0	13.1	9.2	.0	3.5	71.0	
	TOT OBS												459
	TOT PCT	11.1	9.0	10.8	21.1	7.7	8.3	15.7	12.1	.0	4.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.2	.0	.0	.0	.0	.0	.0		.2	
	22+	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.2	.0	.0	.2	.0	.0	.0		.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	TOT %	.2	.0	.2	.0	.0	.2	.0	.2	.0	.0	.9	
2<5	0-3	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.4	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0		.2	
	11-21	.0	.2	.0	.6	.0	.2	.3	.1	.0		1.5	
	22+	1.0	.6	.2	1.1	.0	.0	.0	.0	.0		2.8	
	TOT %	1.1	.9	.3	1.8	.1	.2	.3	.1	.0	.0	5.0	
5<10	0-3	.2	.4	.1	.2	.3	.1	.0	.2	.0	.6	2.2	
	4-10	.3	1.2	.9	.9	.6	.3	.2	.6	.0		5.0	
	11-21	1.3	.6	.2	1.3	.6	2.0	2.1	1.4	.0		9.5	
	22+	.5	.8	.5	3.3	.3	.4	.0	.3	.0		6.3	
	TOT %	2.4	3.0	1.7	5.7	1.8	2.8	2.3	2.6	.0	.6	22.9	
10+	0-3	.2	.3	.4	.2	.4	.9	1.2	.4	.0	3.5	7.6	
	4-10	1.5	1.8	3.1	2.5	1.9	1.2	3.6	2.4	.0		17.9	
	11-21	4.8	2.4	3.6	7.3	2.2	2.7	5.1	5.8	.0		33.9	
	22+	.8	.4	1.3	3.7	1.4	.2	3.0	.7	.0		11.4	
	TOT %	7.2	4.9	8.4	13.7	5.9	5.0	13.0	9.3	.0	3.5	70.8	
	TOT OBS												463
	TOT PCT	11.0	9.0	10.9	21.2	7.8	8.2	15.6	12.2	.0	4.1	100.0	

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PERIOD: (PRIMARY) 1950-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00603	1.0	1.0	2.9	11.4	9.5	7.6	8.6	.0	.0	.0	41.9	58.1	105
06609	1.1	2.2	6.5	14.1	14.1	8.7	4.3	3.3	.0	.0	54.3	45.7	92
12615	5.3	.0	5.3	7.4	10.5	5.3	2.1	.0	1.1	.0	36.8	63.2	95
18621	1.6	.0	6.6	6.6	9.8	13.1	3.3	.0	.0	.0	41.0	59.0	61
TOT	8	3	18	36	39	29	17	3	1	0	154	199	353
PCT	2.3	.8	5.1	10.2	11.0	8.2	4.8	.8	.3	.0	43.6	56.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	.8	1.6	3.9	26.6	67.2	128
06609	.0	1.6	.0	4.0	21.0	73.4	124
12615	.0	.0	.7	6.1	20.4	72.8	147
18621	.0	.0	1.2	6.1	23.2	69.5	82
TOT	0	3	4	24	109	341	481
PCT	.0	.6	.8	5.0	22.7	70.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00603	1.0	5.0	17.8	24.8	57.4	101
06609	1.1	10.3	27.6	28.7	43.7	87
12615	4.5	10.2	19.3	19.3	61.4	88
18621	1.7	8.6	19.0	24.1	56.9	58
TOT	7	28	70	81	193	334
PCT	2.1	8.4	21.0	24.3	54.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.0	.8	.5	.0	.5	7	1.9
55/59	.0	.0	1.1	.9	1.9	6.7	21.1	9.9	153	40.8
50/54	.0	.0	1.1	1.1	4.5	7.5	22.4	14.1	190	50.7
45/49	.0	.0	.0	.0	.8	1.3	2.4	1.9	24	6.4
40/44	.0	.0	.0	.0	.0	.0	.0	.3	1	.3
TOTAL	0	0	8	9	30	60	172	100	375	100.0
PCT	.0	.0	2.1	1.9	8.0	16.0	45.9	26.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.5	.3	.0	.0	.3	.0	.3	.5	.0	.0
7.6	4.6	3.7	7.3	1.6	4.5	5.0	5.2	.0	1.3
2.9	4.5	7.7	12.2	2.5	4.7	8.3	5.2	.0	2.7
.0	.1	.9	1.7	1.5	.5	.5	.5	.0	.5
.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
11.1	9.5	12.3	21.1	5.9	9.7	14.4	11.5	.0	4.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00603	66	63	61	54	49	48	46	54.2	133
06609	60	59	57	54	50	47	47	53.6	138
12615	64	59	57	53	48	45	45	53.0	176
18621	59	58	57	54	48	43	43	52.9	88
TOT	66	61	59	54	48	46	43	53.5	535

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	6.4	8.5	20.2	43.6	21.3	82	94
06609	.0	2.8	10.3	15.0	44.9	27.1	84	107
12615	.0	1.6	9.4	13.4	52.8	22.8	84	127
18621	.0	3.4	.0	20.3	33.9	42.4	88	59
TOT	0	13	31	64	174	103	84	387

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PERIOD: (PRIMARY) 1950-1977
(OVER-ALL) 1868-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.3	.0	.3	2	.0	.6
9/10	.0	.0	.0	.3	.0	.3	2	.0	.6
7/8	.0	.0	.0	.0	1.4	.3	6	.0	1.7
6	.0	.0	.0	.3	.8	.3	5	.0	1.4
5	.0	.0	.3	1.4	4.2	.0	21	.0	5.9
4	.0	.0	.0	7.0	3.4	.3	38	.0	10.7
3	.0	.0	.0	.8	2.8	.3	14	.0	3.9
2	.0	.3	.6	9.0	3.4	.0	47	.0	13.2
1	.0	.3	1.1	5.9	.8	.3	30	.0	8.4
0	.0	.0	3.4	7.0	.6	.0	39	.0	11.0
-1	.0	.0	2.5	4.8	1.4	.0	31	.0	8.7
-2	.0	.0	7.0	3.4	.8	.0	40	.0	11.2
-3	.0	.3	5.3	2.0	.0	.0	27	.0	7.6
-4	.0	.3	2.8	2.2	.0	.0	19	.0	5.3
-5	.0	1.4	2.2	1.7	.0	.0	19	.0	5.3
-6	.0	1.1	1.1	.3	.0	.0	9	.0	2.5
-7/-8	.0	.6	.6	.3	.0	.0	5	.0	1.4
-9/-10	.3	.0	.0	.0	.0	.0	1	.0	.3
-11/-13	.0	.0	.3	.0	.0	.0	1	.0	.3
TOTAL	1		97		70			0	356
		15		166		7	356		
PCT	.3	4.2	27.2	46.6	19.7	2.0	100.0		100.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3
1-2	.7	1.1	1.3	.0	.0	.0	3.1
3-4	.0	1.1	2.5	.4	.0	.0	4.0
5-6	.0	.0	2.9	.7	.0	.0	3.6
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.4	.6	.3	.0	1.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	2.2	7.5	1.7	.3	.0	12.5

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.0	.0	.0	.0	.0	.4
1-2	.4	2.1	.0	.0	.0	.0	2.5
3-4	.0	.4	1.1	.1	.0	.0	1.7
5-6	.0	.0	1.6	.4	.0	.0	2.0
7	.0	.0	.4	.0	.0	.0	.4
8-9	.1	.0	.0	.1	.8	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.4	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	2.5	3.1	.6	1.1	.0	8.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.6	1.3	.4	.0	.0	.0	2.3
3-4	.0	1.1	2.4	.3	.0	.0	3.7
5-6	.0	.0	.6	.6	.0	.0	1.2
7	.0	.0	.4	.6	.0	.0	1.0
8-9	.3	.0	.3	.4	.0	.0	.9
10-11	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	2.7	3.9	2.2	.0	.0	9.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.1	1.0	1.1	.0	.0	.0	2.1
3-4	.4	.7	3.8	.1	.0	.0	4.9
5-6	.0	.4	2.5	1.1	.0	.0	3.9
7	.0	.0	1.8	2.3	.0	.0	4.0
8-9	.0	.0	.1	2.1	.4	.0	2.5
10-11	.0	.0	.4	2.5	.4	.0	3.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.4	1.8	.0	2.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.4	.0	.4
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.4	9.6	8.3	2.8	.0	23.5

PERIOD: (OVER-ALL) 1963-1977

AUGUST

TABLE 18 (CONT)

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.6	1.2	.3	.0	.0	.0	2.1
3-4	.0	.0	1.5	.3	.0	.0	1.8
5-6	.0	.0	.5	.0	.0	.0	.5
7	.0	.0	.3	.3	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.4	.0	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.4	.4	.0	.7
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.2	2.9	.9	.4	.0	6.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1
1-2	1.1	.5	.4	.0	.0	.0	2.1
3-4	.0	.0	1.5	.0	.0	.0	1.5
5-6	.0	.0	1.8	.0	.0	.0	1.8
7	.0	.0	.1	.0	.0	.0	.1
8-9	.4	.0	.4	.1	.0	.0	.8
10-11	.0	.0	.4	.0	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	.6	4.6	.1	.0	.0	6.8

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.4	.0	.0	.0	.0	.4	
1-2	1.0	1.8	2.5	.0	.0	.0	5.4	
3-4	.0	.0	1.7	.7	.0	.0	2.4	
5-6	.0	.0	2.7	.7	.0	.0	3.4	
7	.0	.0	1.0	.7	.0	.0	1.7	
8-9	.4	.0	.0	.6	.0	.0	1.0	
10-11	.0	.0	.0	.3	.0	.0	.3	
12	.0	.0	.0	.0	.4	.0	.4	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.3	2.2	7.9	3.0	.4	.0	14.7	94.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.6	2.1	.0	.0	.0	.0	8.7	
1-2	4.5	10.5	7.3	.0	.0	.0	22.4	
3-4	.3	4.9	17.1	1.7	.0	.0	24.1	
5-6	.0	.7	15.7	3.8	.0	.0	20.3	
7	.0	.0	4.2	4.2	.0	.0	8.4	
8-9	1.0	.0	1.0	4.2	1.4	.0	7.7	
10-11	.0	.0	1.0	3.1	.3	.0	4.5	
12	.0	.0	.0	.0	.7	.0	.7	
13-16	.0	.0	.0	.7	2.1	.0	2.8	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.3	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.6	18.2	46.5	17.8	4.9	.0	100.0	286

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	9.7	11.9	10.0	5.8	5.2	3.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	144	3
6-7	.0	.6	2.6	7.7	7.1	4.5	3.9	.6	2.9	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	93	8
8-9	.0	.6	.3	1.3	1.9	1.3	1.0	1.0	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	8
10-11	.0	.0	.3	.0	.6	.6	.3	.3	1.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	10
12-13	.0	.0	.3	.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	6
>13	.0	.0	.0	.0	.6	.0	.3	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	11
INDET	4.2	1.0	.3	.0	.0	1.0	1.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	4
TOTAL	13	37	49	60	52	39	31	6	18	3	1	1	0	0	0	0	0	0	0	310	6
PCT	4.2	11.9	15.8	19.4	16.8	12.6	10.0	1.9	5.8	1.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1940-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	9.8	1.6	4.9	.0	.0	.0	.0	16.3	3.8	.0	1.6	.0	2.2	.0		76.1
NE	4.2	.0	1.0	.0	.0	.0	.0	5.2	4.2	.0	.0	.0	.0	.0		90.6
E	6.9	.0	2.5	.0	.0	.0	.0	9.4	5.0	.0	.0	.0	.0	.0		85.6
SE	3.4	.0	.0	.0	.0	.0	.0	3.4	4.1	.0	.0	.0	1.4	.0		91.0
S	4.6	1.3	.0	.0	.0	.0	.0	5.8	1.7	.0	1.7	.0	.0	.0		90.8
SW	4.8	5.2	.0	.0	.0	.0	.0	10.0	3.6	.0	1.6	.0	4.8	.0		80.1
W	2.7	1.4	4.3	.0	.0	.0	.0	7.3	.9	.0	.6	.0	.9	.0		90.2
NW	10.0	3.1	6.9	.0	.0	.0	.0	15.5	1.7	1.4	2.4	.0	.3	1.4		77.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		100.0
TOT PCT	5.5	1.7	2.5	.0	.0	.0	.0	8.8	2.7	.2	1.1	.0	1.3	.2		85.7
TOT OBS:	475															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	2.7	.0	.7	.0	.0	.0	.0	3.4	4.8	.0	.7	.0	2.7	.7		87.8
06&09	7.7	3.4	2.6	.0	.0	.0	.0	12.0	3.4	.0	.9	.0	.9	.0		82.9
12&15	7.0	2.3	3.9	.0	.0	.0	.0	11.7	.8	.8	.8	.0	.0	.0		85.9
18&21	4.5	2.7	2.7	.0	.0	.0	.0	10.0	1.8	.0	1.8	.0	.9	.0		85.5
TOT PCT	5.4	2.0	2.4	.0	.0	.0	.0	9.0	2.8	.2	1.0	.0	1.2	.2		85.7
TOT OBS:	502															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	3.3	3.8	1.3	1.0	.0		10.0	15.0	11.0	10.2	9.6	9.8	11.4	3.3	8.1	14.7
NE	1.1	3.0	1.1	.1	*	.0		5.4	8.6	5.5	4.6	2.1	9.8	5.6	8.3	6.5	4.3
E	.6	3.8	3.4	1.1	.5	.0		9.3	13.6	11.4	2.8	10.6	7.6	5.8	10.8	12.4	6.9
SE	.2	2.8	4.7	3.3	3.2	.0		14.3	21.8	14.4	17.6	12.5	10.6	15.3	22.5	14.0	8.6
S	1.3	3.3	4.4	2.3	1.5	.0		12.7	16.7	10.4	8.3	9.3	.0	12.7	12.5	22.5	22.4
SW	.4	3.5	4.4	2.7	.8	.4		12.2	18.1	9.4	19.4	14.4	7.6	11.2	19.2	12.6	10.3
W	.6	5.2	6.8	4.7	.3	.0		17.5	16.4	20.7	12.0	19.9	22.7	17.2	7.5	13.2	19.8
NW	.3	4.2	7.1	3.7	.3	.0		15.6	16.2	14.0	21.3	17.3	28.8	19.0	5.8	10.7	9.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.9							2.9	.0	3.1	3.7	4.3	3.0	1.7	10.0	.0	3.4
TOT OBS	43	159	195	105	41	2	545		16.1	127	27	96	33	116	30	89	29
TOT PCT	7.9	29.2	35.8	19.3	7.5	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.9	3.6	2.0	1.5	.0		10.0	15.0	10.9	9.6	9.8	9.7
NE	2.7	2.2	.5	.1	.0		5.4	8.6	5.4	4.1	6.2	5.9
E	2.1	4.3	2.0	.8	.1		9.3	13.6	9.9	9.8	6.8	11.0
SE	1.4	3.2	5.4	3.5	.7		14.3	21.8	14.9	12.0	16.8	12.7
S	2.8	4.3	3.2	2.1	.3		12.7	16.7	10.1	6.9	12.7	22.5
SW	1.1	5.8	3.2	1.6	.6		12.2	18.1	11.2	12.6	12.8	12.1
W	2.1	6.7	6.7	2.1	.0		17.5	16.4	19.2	20.7	15.2	14.8
NW	1.4	7.6	4.8	1.9	.0		15.6	16.2	15.3	20.3	16.3	10.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.9						2.9	.0	3.2	3.9	3.4	.8
TOT OBS	106	205	151	74	9	545		16.1	154	127	146	118
TOT PCT	19.4	37.6	27.7	13.6	1.7		100.0		100.0	100.0	100.0	100.0

SEPTEMBER

PERIOD: (PRIMARY) 1940-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.2	3.2	33.8	28.6	24.7	6.5	.0	16.0	100.0	154
06&09	3.9	6.3	18.9	41.7	19.7	8.7	.8	17.1	100.0	127
12&15	3.4	4.1	32.2	38.4	15.1	6.2	.7	15.1	100.0	146
18&21	.8	6.8	30.5	35.6	16.9	9.3	.0	16.2	100.0	118
TOT	16	27	159	195	105	41	2	16.1		545
PCT	2.9	5.0	29.2	35.8	19.3	7.5	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.2	1.5	4.1	1.8		5.0
NE	1.0	.4	2.2	1.3		5.6
E	3.0	1.2	2.8	2.1		4.5
SE	5.4	2.4	4.9	2.4		4.2
S	4.5	3.4	3.9	1.8		4.0
SW	4.6	3.3	5.0	1.0		3.9
W	4.1	3.5	7.0	1.8		4.6
NW	3.7	2.3	5.4	2.7		4.8
VAR	.0	.0	.0	.0		.0
CALM	1.2	1.5	.3	.3		3.0
TOT OBS	101	66	121	52	340	4.4
TOT PCT	29.7	19.4	35.6	15.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.0	.0	1.3	.9	1.8	.6	.0	.0	.0	4.8	
NE	.0	.0	.0	.3	.9	.2	.7	.0	.0	.0	2.9	
E	.0	.0	.6	.0	.8	.7	1.6	.3	.3	.0	4.8	
SE	.3	.0	.0	1.3	.6	2.1	.4	.0	.6	.0	10.0	
S	.3	.0	.2	.9	1.0	1.3	.3	.0	.0	.0	10.4	
SW	.3	.0	.1	.9	1.0	1.8	.3	.0	.0	.0	9.5	
W	.5	.0	.5	1.9	1.6	2.1	.0	.3	.0	.0	9.5	
NW	.7	.0	.4	1.0	2.4	2.4	.6	.0	.0	.0	6.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	2.6	
TOT OBS	8	0	6	23	31	44	15	2	3	0	208	340
TOT PCT	2.4	.0	1.8	6.8	9.1	12.9	4.4	.6	.9	.0	61.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.6	.8	.8	.8	.8	.8	.8	.8
= OR >5000	1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7
= OR >3500	3.6	5.5	5.8	5.8	5.8	5.8	5.8	5.8
= OR >2000	10.5	17.4	18.8	18.8	18.8	18.8	18.8	18.8
= OR >1000	15.2	24.9	27.6	27.6	27.6	27.6	27.6	27.6
= OR >600	19.1	30.4	34.3	34.5	34.5	34.5	34.5	34.5
= OR >300	19.6	31.2	35.9	36.2	36.2	36.2	36.2	36.2
= OR >150	19.6	31.2	35.9	36.2	36.2	36.2	36.2	36.2
= OR > 0	20.2	32.3	37.8	38.4	38.4	38.4	38.4	38.4
TOTAL	73	117	137	139	139	139	139	139

TOTAL NUMBER OF OBS: 362

PCT FREQ NH <5/8: 61.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.9	17.2	13.3	12.5	9.1	5.7	12.0	8.6	10.9	1.8	384

SEPTEMBER

PERIOD: (PRIMARY) 1940-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	PCP	.2	.0	.0	.0	.0	.0	.1	.1	.0	.0	.4	
1/2<1	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.0	.0	.0	.1	.1	.0	.0	.4	
	PCP	.0	.0	.4	.0	.0	.0	.0	.2	.0	.0	.6	
1<2	NO PCP	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	TOT %	.4	.0	.4	.0	.0	.0	.0	.2	.0	.0	1.1	
	PCP	.6	.0	.2	.2	.2	.2	.4	.9	.0	.0	2.7	
2<5	NO PCP	.5	.3	.0	.4	.0	.2	.0	.5	.0	.0	1.9	
	TOT %	1.1	.3	.2	.6	.2	.4	.4	1.4	.0	.0	4.6	
	PCP	.6	.2	.2	.1	.2	.4	.6	1.1	.0	.0	3.4	
5<10	NO PCP	1.1	.9	1.3	4.6	3.9	3.8	4.1	4.5	.0	.4	24.4	
	TOT %	1.7	1.1	1.4	4.7	4.1	4.2	4.7	5.5	.0	.4	27.8	
	PCP	.2	.1	.0	.2	.4	.7	.2	.1	.0	.0	1.7	
10+	NO PCP	6.2	3.6	6.4	9.7	8.0	7.7	11.9	8.0	.0	2.7	64.2	
	TOT %	6.3	3.6	6.4	9.9	8.4	8.4	12.1	8.1	.0	2.7	65.9	
	TOT OBS												475
	TOT PCT	9.7	5.1	8.4	15.3	12.6	13.2	17.3	15.3	.0	3.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0		.2	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.0	.0	.0	.0	.0	.1	.1	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.2	.0	.0	.0	.0	.0	.1	.1	.0	.0	.4	
	0-3	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.2	.0	.4	.0	.0	.0	.0	.2	.0		.8	
	22+	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.4	.0	.6	.0	.0	.0	.0	.2	.0	.0	1.2	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	4-10	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.4	.0	.0	.2	.0	.2	.0	.1	.0		.8	
	22+	.7	.1	.2	.4	.2	.2	.4	1.3	.0		3.5	
	TOT %	1.0	.3	.2	.6	.2	.4	.4	1.4	.0	.0	4.6	
	0-3	.0	.2	.0	.0	.4	.0	.0	.0	.0	.4	1.0	
5<10	4-10	.3	.5	.4	.2	.7	.8	.7	.8	.0		4.3	
	11-21	.7	.4	.6	1.3	2.1	1.8	2.1	2.8	.0		11.8	
	22+	.7	.0	.4	3.1	.8	1.6	2.0	1.8	.0		10.4	
	TOT %	1.7	1.1	1.4	4.6	4.0	4.1	4.8	5.4	.0	.4	27.5	
	0-3	.3	.6	.4	.2	.8	.4	.6	.3	.0	2.7	6.4	
10+	4-10	2.7	2.2	3.0	2.5	2.7	2.7	4.2	2.9	.0		23.0	
	11-21	2.7	.6	2.0	3.8	2.4	2.7	4.8	3.9	.0		23.0	
	22+	.6	.1	.9	3.2	2.3	2.4	3.0	1.2	.0		13.7	
	TOT %	6.3	3.6	6.3	9.8	8.2	8.2	12.7	8.3	.0	2.7	66.0	
	TOT OBS												483
	TOT PCT	9.6	5.0	8.5	15.0	12.4	13.0	18.0	15.4	.0	3.1	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1940-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	.8	6.3	7.1	12.7	3.2	1.6	.8	.0	32.5	67.5	126
06&09	3.2	.0	1.1	7.4	11.6	13.7	1.1	.0	1.1	.0	38.9	61.1	95
12&15	7.1	.0	1.4	4.3	8.6	12.9	4.3	1.4	1.4	.0	41.4	58.6	70
18&21	.0	.0	3.7	8.5	7.3	11.0	8.5	.0	.0	.0	39.0	61.0	82
TOT	8	0	6	25	32	47	15	3	3	0	139	234	373
PCT	2.1	.0	1.6	6.7	8.6	12.6	4.0	.8	.8	.0	37.3	62.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.7	1.4	1.4	20.9	75.7	148
06&09	.0	.0	.8	5.8	25.0	68.3	120
12&15	.8	.8	1.5	7.6	28.2	61.1	131
18&21	.0	.0	.9	4.5	35.1	59.5	111
TOT	1	2	6	24	137	340	510
PCT	.2	.4	1.2	4.7	26.9	66.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	.8	8.1	25.0	66.9	124
06&09	3.3	4.3	14.1	26.1	59.8	92
12&15	7.6	9.1	19.7	24.2	56.1	66
18&21	.0	3.8	16.3	23.8	60.0	80
TOT	8	14	49	90	223	362
PCT	2.2	3.9	13.5	24.9	61.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.6	.3	.0	.0	3	.8
60/64	.0	.0	.3	.0	.0	.8	2.0	.3	12	3.4
55/59	.0	.3	.6	.3	3.4	8.8	19.3	7.4	141	39.9
50/54	.0	.0	.8	1.1	4.0	11.6	23.8	7.1	171	48.4
45/49	.0	.0	.0	.3	.0	2.0	3.7	1.4	26	7.4
TOTAL	0	1	6	4	28	83	172	57	353	100.0
PCT	.0	.3	1.7	1.7	7.9	23.5	48.7	16.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.6	.0	.0	.0	.0	.2	.1	.0	.0
.9	.4	.3	.3	.0	.3	.5	.8	.0	.0
5.0	2.3	2.5	3.8	3.5	3.8	8.4	9.6	.0	1.1
2.1	1.1	4.3	10.7	8.1	7.6	9.6	4.2	.0	.8
.0	.4	.7	2.1	3.1	.4	.7	.0	.0	.0
8.0	4.7	7.8	16.8	14.7	12.1	19.3	14.7	.0	2.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	66	65	61	55	50	48	45	55.7	161
06&09	63	61	59	55	48	46	46	54.3	131
12&15	61	59	57	53	48	46	45	52.6	152
18&21	60	59	59	53	47	45	45	53.0	116
TOT	66	62	60	54	48	46	45	54.0	560

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.9	12.9	28.7	37.6	12.9	78	101
06&09	.0	4.4	9.9	23.1	42.9	19.8	82	91
12&15	.0	.0	1.9	20.2	61.5	16.3	85	104
18&21	.0	1.4	6.8	20.3	54.1	17.6	84	74
TOT	0	13	29	86	181	61	82	370

SEPTEMBER

PERIOD: (PRIMARY) 1940-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.3	.3	.0	.3	3	.0	.8
9/10	.0	.0	.3	.5	.0	.5	5	.0	1.9
7/8	.0	.0	.0	1.1	1.1	.0	8	.0	2.1
6	.0	.0	.0	.5	.3	.0	3	.0	.9
5	.0	.3	.0	4.0	1.3	.0	21	.3	5.3
4	.3	.3	7.0	2.7	.3	.0	39	.0	10.4
3	.0	.3	.8	1.6	.0	.0	10	.3	2.4
2	.3	1.1	7.2	4.3	.3	.0	49	.3	12.6
1	.0	.3	5.9	1.9	.8	.3	34	.0	9.1
0	.5	7.0	8.0	2.1	.0	.0	66	.0	17.6
-1	.3	3.7	7.2	1.3	.0	.0	47	.0	12.6
-2	.3	2.1	4.0	1.1	.0	.0	28	.0	7.5
-3	.0	2.1	1.6	.0	.0	.0	14	.0	3.7
-4	.5	1.9	1.6	.0	.0	.0	15	.0	4.0
-5	1.3	3.7	1.3	.0	.0	.0	24	.0	6.4
-6	.3	.5	.3	.5	.0	.0	6	.0	1.4
-7/-8	.3	.3	.0	.0	.0	.0	2	.0	.5
TOTAL	15	88	170	82	15	4	374	3	371
PCT	4.0	23.5	45.5	21.9	4.0	1.1	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.0	.0	.0	.0	.9
1-2	.0	.6	.3	.0	.0	.0	.9
3-4	.0	.3	1.3	.3	.0	.0	2.0
5-6	.0	.0	.0	.6	.2	.0	.8
7	.0	.0	.3	.2	.0	.0	.6
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.2	.0	.0	.0	.0	.2
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.3	.0	.0	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	2.9	1.4	.2	.0	6.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3
1-2	.0	1.3	.6	.0	.0	.0	2.0
3-4	.0	.9	.3	.0	.0	.0	1.3
5-6	.0	.3	.3	.1	.1	.0	.8
7	.0	.0	.0	.1	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.1	.0	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.7	1.3	.2	.1	.0	4.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.3	.0	.0	.0	.0	1.9
1-2	.0	.9	.9	.0	.0	.0	1.8
3-4	.0	1.3	1.2	.0	.0	.0	2.5
5-6	.0	.0	.5	.6	.0	.0	1.0
7	.0	.3	.6	.3	.3	.0	1.5
8-9	.0	.0	.3	.6	.0	.0	.9
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.7	3.5	1.7	.3	.0	9.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.0	.0	.0	.0	.9
1-2	.3	1.0	1.1	.0	.0	.0	2.5
3-4	.0	1.6	1.7	.7	.0	.0	4.0
5-6	.0	.0	1.9	.7	.0	.0	2.6
7	.0	.0	.2	.4	.6	.0	1.3
8-9	.0	.0	.6	.5	.3	.0	1.4
10-11	.0	.0	.0	.6	.7	.0	1.3
12	.0	.0	.1	.3	.3	.0	.7
13-16	.0	.0	.3	.4	.7	.0	1.4
17-19	.0	.0	.0	.3	1.3	.0	1.9
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.9	6.0	4.0	4.0	.0	18.1

PERIOD: (OVER-ALL) 1963-1977 SEPTEMBER AREA 0027 COOK STRAIT (NW)

TABLE 18 (CONT) 40.1S 173.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.8	.0	.0	.0	.0	2.5
1-2	.0	1.2	1.4	.0	.0	.0	2.8
3-4	.3	.3	1.3	.2	.0	.0	2.1
5-6	.0	.0	.8	1.1	.0	.0	1.9
7	.0	.0	1.0	.2	1.3	.0	2.5
8-9	.0	.0	.0	.6	.0	.0	.6
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.2	.0	.0	.0	.2
13-16	.0	.0	.0	.5	.6	.0	1.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.2	.0	.0	.2
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	3.3	4.9	2.8	2.1	.0	14.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1
1-2	.0	2.3	.8	.0	.0	.0	3.1
3-4	.0	.3	2.8	.3	.0	.0	3.4
5-6	.0	.0	.7	.5	.0	.0	1.2
7	.0	.0	.8	.9	.1	.0	1.8
8-9	.0	.0	.0	.6	.0	.0	.6
10-11	.0	.0	.6	.9	.3	.0	1.9
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.4	.3	.0	.7
17-19	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.1	.0	.0	.1
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.7	5.7	3.8	1.0	.0	13.2

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.6	.0	.0	.0	.0	.9
1-2	.0	1.3	.6	.0	.0	.0	1.9
3-4	.0	2.5	3.2	.9	.0	.0	6.6
5-6	.0	.3	1.5	2.4	.2	.0	4.4
7	.0	.0	1.4	.3	.2	.0	2.0
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.2	.6	.0	.0	.8
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.8	.0	.0	.8
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.7	7.0	5.5	.5	.0	17.9

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.3	.0	.0	.0	.0	.3	
1-2	.0	.9	1.6	.0	.0	.0	2.5	
3-4	.0	.7	3.1	.3	.0	.0	4.1	
5-6	.0	.3	.3	1.4	.1	.0	2.1	
7	.0	.0	.4	.6	.0	.0	1.0	
8-9	.0	.0	.3	.7	.3	.0	1.3	
10-11	.0	.0	.4	.4	.0	.0	.8	
12	.0	.0	.0	.4	.0	.0	.4	
13-16	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.3	5.1	4.0	.4	.0	12.8	97.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.0	5.9	.0	.0	.0	.0	10.9	
1-2	.3	10.3	7.5	.0	.0	.0	18.1	
3-4	.3	7.8	15.0	2.8	.0	.0	25.9	
5-6	.0	.9	5.9	7.2	.6	.0	14.6	
7	.0	.3	4.7	3.1	2.5	.0	10.6	
8-9	.0	.0	1.6	3.1	.6	.0	5.3	
10-11	.0	.0	1.6	2.8	1.2	.0	5.6	
12	.0	.3	.3	.9	.3	.0	1.9	
13-16	.0	.0	.3	2.5	1.6	.0	4.4	
17-19	.0	.3	.0	.3	1.6	.0	2.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.3	.0	.0	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.3	.0	.0	.3	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.6	25.9	37.1	23.1	8.4	.0	100.0	321

PERIOD: (OVER-ALL) 1952-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.9	5.8	8.8	9.4	4.4	4.7	3.2	1.8	2.3	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	145	6
6-7	.0	.6	1.8	4.4	7.0	3.2	1.5	1.8	4.7	1.2	1.2	.3	.3	.0	.0	.0	.0	.0	.0	95	9
8-9	.0	.3	2.0	1.5	2.6	2.0	3.8	.0	1.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	48	8
10-11	.0	.3	.6	.3	1.2	.9	.6	.3	.9	.9	.3	.0	.0	.3	.0	.0	.0	.0	.0	22	11
12-13	.0	.0	2.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	3
>13	.0	.0	.0	.6	.0	.0	.3	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	5	12
INDET	4.1	.0	.3	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	1
TOTAL	17	24	55	56	53	38	32	18	83	12	5	2	1	1	0	0	0	0	0	342	7
PCT	5.0	7.0	16.1	16.4	15.5	11.1	9.4	5.8	9.6	3.5	1.5	.6	.3	.3	.0	.0	.0	.0	.0	100.5	

OCTOBER

PERIOD: (PRIMARY) 1950-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.0S 173.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	14.5	3.9	5.9	.0	.0	.0	.0	22.7	7.5	.0	.8	.0	1.6		.0	67.5
NE	24.4	.0	3.4	.0	.0	.0	.0	27.7	6.7	3.4	1.7	.0	6.7		.0	57.1
E	.0	.0	.0	.0	.0	.0	.0	.0	11.0	.0	.0	.0	.0		.0	89.0
SE	6.5	1.4	7.6	.0	.0	.0	.0	12.7	5.4	.0	.0	.0	2.2		.0	79.7
S	3.2	2.2	1.6	.0	.0	.0	.0	7.0	3.2	1.1	2.7	.0	5.4		.0	80.5
SW	2.8	.0	2.8	.0	.0	.0	.0	5.6	4.2	.7	3.8	.0	.0		.0	85.7
W	2.4	2.4	.6	.0	.0	.0	.0	5.5	3.9	.0	2.0	.0	2.0		.0	86.6
NW	4.0	1.3	2.2	.0	.0	.0	.0	7.6	2.2	.0	3.1	.0	1.3		.0	85.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.1	.0	.0	.0		.0	88.9
TOT PCT	5.7	1.6	2.9	.0	.0	.0	.0	9.7	4.7	.5	2.0	.0	2.0		.0	81.4
TOT OBS:	558															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.3	1.6	.8	.0	.0	.0	.0	8.6	9.5	.0	1.6	.0	3.9		.0	80.5
06&09	4.7	1.3	2.7	.0	.0	.0	.0	7.3	4.7	.7	1.3	.0	2.7		.0	84.0
12&15	5.0	2.2	3.9	.0	.0	.0	.0	10.5	3.3	1.1	2.2	.0	.6		.0	82.3
18&21	7.6	1.5	3.1	.0	.0	.0	.0	12.2	4.6	.0	2.3	.0	.8		.0	80.2
TOT PCT	5.8	1.7	2.7	.0	.0	.0	.0	9.7	4.4	.5	1.9	.0	1.9		.0	81.9
TOT OBS:	590															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	4.1	3.5	2.4	.6	.0		11.2	15.4	10.6	7.0	12.9	11.7	12.7	12.2	8.0	13.1
NE	.5	1.6	1.7	.6	.4	.2		4.9	16.1	6.3	2.3	3.0	2.1	5.3	11.6	5.3	.0
E	.2	1.9	2.2	1.3	.4	.1		6.0	17.3	5.8	18.0	5.7	2.1	8.5	1.2	1.6	13.1
SE	.5	1.9	4.5	2.6	2.7	*		12.1	21.2	14.2	11.7	6.1	14.4	11.4	20.9	13.3	10.7
S	.4	1.7	4.0	.9	.8	.0		7.9	16.7	5.8	10.9	8.9	9.0	7.9	11.6	4.8	14.3
SW	.0	2.4	4.7	3.6	2.2	.0		12.9	20.9	9.6	10.9	17.8	17.0	12.0	5.8	14.9	7.1
W	.2	2.3	9.9	7.5	2.7	.0		22.6	21.1	18.0	22.7	23.1	16.9	26.5	14.5	26.1	22.6
NW	.5	5.4	10.7	3.3	1.1	.0		20.9	16.1	26.9	16.4	21.6	25.0	15.2	17.4	25.0	14.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.6							1.6	.0	2.9	.0	.8	2.1	.6	4.7	.9	4.8
TOT OBS	28	136	262	142	69	2	639		18.2	104	32	118	47	165	43	109	21
TOT PCT	4.4	21.3	41.0	22.2	10.8	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.1	4.8	3.3	.7	.3		11.2	15.4	9.7	12.6	12.6	8.8
NE	.9	2.1	1.2	.4	.4		4.9	16.1	5.3	2.7	8.6	4.4
E	.5	2.7	2.3	.4	.1		6.0	17.3	8.6	4.7	7.0	3.5
SE	.7	4.6	5.0	1.4	.4		12.1	21.2	13.6	8.5	13.3	12.9
S	.7	3.8	2.4	.8	.1		7.9	16.7	7.0	8.9	8.7	6.3
SW	.7	4.5	4.0	1.4	.3		12.9	20.9	9.9	17.6	10.7	13.7
W	.7	7.4	8.4	5.8	.3		22.6	21.1	19.1	21.2	24.0	23.6
NW	2.0	10.1	7.0	1.5	.3		20.9	16.1	24.4	22.6	15.6	23.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.6						1.6	.0	2.2	1.2	1.4	1.5
TOT OBS	62	256	202	105	14	639		18.2	136	165	208	130
TOT PCT	9.7	40.1	31.6	16.4	2.2		100.0		100.0	100.0	100.0	100.0

OCTOBER

PERIOD: (PRIMARY) 1950-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.0S 173.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.2	.0	16.2	50.0	20.6	10.3	.7	18.8	100.0	136
06&09	1.2	3.6	24.2	35.8	29.0	12.1	.0	18.4	100.0	165
12&15	1.4	3.8	22.1	42.3	21.6	8.7	.0	17.3	100.0	208
18&21	1.5	3.1	21.5	36.2	29.8	13.1	.8	18.9	100.0	130
TOT	10	18	136	262	142	69	2	18.2		639
PCT	1.6	2.8	21.3	41.0	22.2	10.8	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.3	1.1	5.3	3.6		5.9
NE	1.2	.2	1.2	1.9		5.7
E	1.3	1.0	2.3	1.2		5.0
SE	3.5	2.2	3.2	3.8		4.7
S	2.4	.6	2.9	1.9		4.7
SW	2.9	4.0	5.0	1.3		4.4
W	8.7	4.9	7.2	1.8		3.7
NW	5.0	2.7	7.6	5.3		5.1
VAR	.0	.0	.0	.0		.0
CALM	.8	.0	.8	.0		3.6
TOT OBS	106	65	138	81	390	4.7
TOT PCT	27.2	16.7	35.4	20.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.8	.2	1.3	1.2	1.9	1.7	.2	.3	.3	.3	3.2	
NE	.0	.0	.3	.9	.5	1.0	.1	.3	.0	.0	1.3	
E	.0	.0	.0	1.3	.4	.6	.3	.3	.0	.2	2.8	
SE	.5	.0	.3	1.1	.9	2.6	.5	.3	.0	.1	6.5	
S	.3	.3	.0	.8	1.5	1.6	.3	.0	.0	.0	3.0	
SW	.0	.0	.0	.8	1.2	1.9	.8	.0	.0	.0	8.6	
W	.0	.0	.2	2.7	2.5	1.0	.4	.0	.0	.0	15.8	
NW	.8	.6	.7	2.9	2.8	2.4	1.0	.0	.0	.0	10.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	1.0	
TOT OBS	9	4	11	43	47	51	14	4	1	2	204	393
TOT PCT	2.3	1.0	2.8	11.0	12.1	13.1	3.6	1.0	.3	.5	52.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.7	.7	.7	.7	.7	.7	.7	.7
* OR >5000	1.0	1.2	1.7	1.7	1.7	1.7	1.7	1.7
* OR >3500	3.0	4.7	5.7	5.7	5.7	5.7	5.7	5.7
* OR >2000	11.4	16.8	19.1	19.3	19.3	19.3	19.3	19.3
* OR >1000	19.8	26.5	29.7	30.0	30.2	30.2	30.2	30.2
* OR >600	26.5	34.9	39.9	40.6	40.8	40.8	40.8	40.8
* OR >300	27.0	36.4	42.6	43.3	43.6	43.6	43.6	43.6
* OR >150	27.2	36.9	43.3	44.1	44.3	44.3	44.6	44.6
* OR > 0	28.0	38.4	45.3	46.0	46.5	46.8	47.0	47.0
TOTAL	113	155	183	186	188	189	190	190

TOTAL NUMBER OF OBS: 404 PCT FREQ NH <5/8: 53.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.8	14.5	9.8	8.0	8.3	4.7	11.8	12.5	16.7	1.6	448

OCTOBER

PERIOD: (PRIMARY) 1950-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.0S 173.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.2	.0	.0	.0	.2	.0	.2	.0	.0	.5	
<1/2	NO PCP	.0	.0	.0	.0	.1	.1	.2	.2	.0	.0	.5	
	TOT %	.0	.2	.0	.0	.1	.3	.2	.4	.0	.0	1.1	
	PCP	.2	.0	.0	.0	.0	.0	.0	.7	.0	.0	.9	
1/2<1	NO PCP	.2	.1	.0	.0	.0	.4	.4	.1	.0	.0	1.1	
	TOT %	.4	.1	.0	.0	.0	.4	.4	.8	.0	.0	2.0	
	PCP	.3	*	.0	*	.1	.0	.0	.0	.0	.0	.5	
1<2	NO PCP	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	TOT %	.3	*	.0	*	.1	.0	.2	.0	.0	.0	.7	
	PCP	.7	.9	.0	.6	.3	.0	.3	.6	.0	.0	3.4	
2<5	NO PCP	.5	.0	.2	.2	.1	1.5	.7	.4	.0	.0	3.6	
	TOT %	1.2	.9	.2	.8	.4	1.5	1.0	1.0	.0	.0	7.0	
	PCP	1.1	.2	.0	.4	.0	.4	.7	.0	.0	.0	2.7	
5<10	NO PCP	1.8	1.8	.9	4.3	2.2	3.0	5.3	4.0	.0	.2	23.5	
	TOT %	2.9	2.0	.9	4.7	2.2	3.4	6.0	4.0	.0	.2	26.2	
	PCP	.4	.2	.0	.5	.2	.2	.2	.0	.0	.0	1.6	
10+	NO PCP	6.3	2.0	5.1	6.3	5.2	7.2	14.1	13.8	.0	1.4	61.5	
	TOT %	6.7	2.2	5.1	6.9	5.4	7.3	14.3	13.9	.0	1.4	63.1	
	TOT OBS												558
	TOT PCT	11.4	5.3	6.1	12.4	8.9	12.8	22.1	20.0	.0	1.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.1	.0	.0	.0	.1	.3	.0	.1	.0		.5	
	22+	.0	.0	.0	.0	.0	.0	.2	.4	.0		.5	
	TOT %	.1	.2	.0	.0	.1	.3	.2	.4	.0	.0	1.2	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.0	.0	.0	.0	.2	.0	.0	.0		.2	
	11-21	.2	.1	.0	.0	.0	.0	.2	.1	.0		.5	
	22+	.2	.0	.0	.0	.0	.2	.2	.7	.0		1.2	
	TOT %	.4	.1	.0	.0	.0	.4	.4	.8	.0	.0	2.0	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	*	.1	.0	.0	.2	.0		.4	
	22+	.3	*	.0	.0	.0	.0	.2	.0	.0		.5	
	TOT %	.3	*	.0	*	.1	.0	.2	.2	.0	.0	.9	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.5	.4	.2	.6	.3	.2	.4	.8	.0		3.2	
	22+	.7	.5	.0	.2	.1	1.3	.7	.2	.0		3.7	
	TOT %	1.2	.9	.2	.8	.4	1.5	1.0	1.0	.0	.0	7.0	
	0-3	.2	.0	.2	.4	.2	.0	.0	.0	.0	.2	1.1	
5<10	4-10	.7	.6	.3	.5	.4	.8	.4	.7	.0		4.5	
	11-21	.8	.7	.2	.9	1.3	1.0	1.9	1.8	.0		8.6	
	22+	1.2	.6	.2	2.9	.3	1.6	3.7	1.5	.0		11.9	
	TOT %	2.9	2.0	.8	4.6	2.2	3.3	6.0	4.0	.0	.2	26.0	
	0-3	.1	.4	.0	*	.3	.0	.2	.4	.0	1.4	2.9	
10+	4-10	3.4	1.1	1.4	1.5	1.3	1.2	1.8	4.5	.0		16.2	
	11-21	2.1	.6	2.0	2.5	2.4	2.8	7.1	7.6	.0		27.1	
	22+	.9	*	1.7	2.9	1.5	3.3	5.1	1.3	.0		16.8	
	TOT %	6.6	2.1	5.0	6.8	5.6	7.3	14.2	13.8	.0	1.4	62.9	
	TOT OBS												961
	TOT PCT	11.5	5.3	6.1	12.3	8.4	12.7	22.0	20.1	.0	1.6	100.0	

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PERIOD: (PRIMARY) 1950-1977
(OVER-ALL) 1868-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.9	.9	3.6	7.2	8.1	12.6	1.8	.9	.9	1.8	38.7	61.3	111
06&09	1.7	1.7	.9	9.6	13.0	7.0	3.5	1.7	.0	.0	39.1	60.9	115
12&15	4.0	.0	3.0	8.0	7.0	19.0	2.0	.0	.0	.0	43.0	57.0	100
18&21	2.9	1.0	2.9	16.3	15.4	13.5	7.7	1.0	.0	.0	60.6	39.4	104
TOT	10	4	11	44	47	55	16	4	1	2	194	236	430
PCT	2.3	.9	2.6	10.2	10.9	12.8	3.7	.9	.2	.5	45.1	54.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.8	.8	2.5	7.0	23.3	65.9	129
06&09	2.0	1.3	.7	5.3	23.3	67.3	150
12&15	1.1	2.2	1.1	5.5	31.7	58.5	183
18&21	.8	3.1	.0	9.2	22.9	64.1	131
TOT	7	11	6	39	153	377	593
PCT	1.2	1.9	1.0	6.6	25.8	63.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.0	5.7	21.9	20.0	58.1	105
06&09	1.8	5.5	19.3	23.9	56.9	109
12&15	4.3	7.4	20.2	27.7	52.1	94
18&21	3.1	7.3	28.1	35.4	96.5	96
TOT	10	26	90	107	207	404
PCT	2.5	6.4	22.3	26.5	51.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.2	.0	.0	.2	2	.4
60/64	.0	.2	.0	.0	.9	2.0	.7	3.3	32	7.0
55/59	.0	.4	.4	.9	4.8	13.0	22.9	21.6	286	63.0
50/54	.0	.0	.2	.2	3.3	6.4	12.6	6.6	133	29.3
45/49	.0	.0	.0	.0	.0	.2	.0	.0	1	.2
TOTAL	0	3	3	2	42	98	162	144	454	100.0
PCT	.0	.7	.7	.4	9.3	21.6	35.7	31.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.1	.0	.2	.0	.0	.0	.0	.0	.0
1.9	.4	.4	.0	.4	.3	1.7	1.9	.0	.0
8.9	2.8	3.5	4.5	3.6	8.1	14.7	16.2	.0	.7
.9	1.5	1.7	8.1	3.0	4.6	7.0	2.0	.0	.4
.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
11.9	4.8	5.6	13.1	7.1	13.0	23.4	20.0	.0	1.1

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	66	65	64	57	52	50	50	57.5	134
06&09	68	67	61	57	50	50	46	56.2	170
12&15	68	61	59	55	50	48	46	55.1	210
18&21	64	63	59	55	50	49	48	55.2	136
TOT	68	64	61	55	51	49	46	55.9	650

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	2.0	18.2	24.2	23.2	32.3	82	99
06&09	.0	1.6	8.7	26.2	39.7	23.8	83	126
12&15	.0	1.4	8.2	17.0	39.5	34.0	85	147
18&21	.0	1.9	5.6	18.7	35.5	38.3	86	107
TOT	0	8	47	102	169	153	84	479

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PERIOD: (PRIMARY) 1950-1977
(OVER-ALL) 1868-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.3	.0	1	.0	.3
11/13	.0	.0	.0	.3	.3	.3	3	.0	.8
9/10	.0	.0	.0	.3	.8	.5	6	.0	1.5
7/8	.0	.0	.0	.3	1.3	.0	6	.0	1.5
6	.0	.0	.0	.0	1.3	.3	6	.0	1.5
5	.0	.0	1.0	3.0	3.0	.0	36	.0	9.1
4	.0	.0	.5	5.3	.8	.3	27	1.0	5.8
3	.0	.0	.5	4.5	.3	.0	21	.0	5.3
2	.0	.3	8.3	5.3	.3	.0	56	.0	14.1
1	.0	.0	6.5	7.1	.0	.0	54	.0	13.6
0	.0	2.0	10.6	5.3	.0	.0	71	1.0	16.9
-1	.3	1.0	4.0	1.8	.0	.0	28	.0	7.1
-2	.0	.5	4.3	1.3	.3	.0	25	.0	6.3
-3	.0	2.0	4.3	.5	.0	.0	27	.0	6.8
-4	.0	1.8	.5	1.5	.0	.0	15	.0	3.8
-5	.5	.8	.8	.3	.0	.0	9	.0	2.3
-6	.0	.3	.8	.0	.3	.0	5	.0	1.3
-7/-8	.0	.3	.0	.0	.0	.0	1	.0	.3
TOTAL	3		167		34		8		389
		38		153		5	397		
PCT	.8	8.8	42.1	38.5	8.4	1.3	100.0	2.0	98.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.5	2.4	.3	.0	.0	.0	3.2
3-4	.0	1.0	1.5	.2	.0	.0	2.7
5-6	.0	.0	1.3	.3	.0	.0	1.5
7	.0	.3	.5	.5	.0	.0	1.0
8-9	.0	.0	.3	.7	.0	.0	1.0
10-11	.0	.0	.0	.3	.8	.0	1.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.2	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.3	.0	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	3.9	3.6	2.5	1.0	.0	11.5

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.6	.0	.0	.0	.0	1.2
1-2	.1	.3	.3	.0	.0	.0	.7
3-4	.0	.0	.3	.1	.0	.0	.3
5-6	.0	.0	.6	.0	.0	.0	.6
7	.0	.0	.0	.1	.0	.0	.1
8-9	.0	.0	.0	.1	.0	.3	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.3	.3	.0	.6
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	1.0	1.1	.6	.6	.3	4.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.5	.0	.0	.0	.0	.8
1-2	.0	.5	.8	.0	.0	.0	1.3
3-4	.0	.3	.2	.0	.0	.0	.5
5-6	.0	.3	.5	.3	.0	.0	1.0
7	.0	.0	.2	.3	.0	.0	.5
8-9	.0	.0	.0	.3	.0	.2	.5
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.5	.0	.0	.5
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.5	1.7	1.9	.0	.2	5.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.3	.0	.0	.0	.6
1-2	.0	1.1	.3	.0	.0	.0	1.5
3-4	.0	.3	.8	.8	.0	.0	1.9
5-6	.0	.3	1.8	.3	.3	.0	2.7
7	.0	.0	.6	.8	.3	.0	1.7
8-9	.0	.0	.0	.3	.3	.1	.6
10-11	.0	.0	.0	.6	.6	.0	1.1
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.1	.6	.3	.0	.9
17-19	.0	.0	.0	.3	.3	.0	.6
20-22	.0	.0	.0	.0	.8	.0	.8
23-25	.0	.0	.1	.0	.0	.0	.1
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.9	4.0	3.7	2.8	.1	12.5

PERIOD: (OVER-ALL) 1963-1977 OCTOBER AREA 0027 COOK STRAIT (NW)
40.0S 173.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	.8	1.0	.0	.0	.0	1.8
3-4	.3	.5	2.4	.3	.0	.0	3.4
5-6	.0	.0	.5	.6	.2	.0	1.3
7	.0	.0	.0	.0	.2	.0	.2
8-9	.0	.0	.0	.3	.2	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.2	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.2	.0	.0	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.5	4.3	1.1	.4	.0	7.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	.1	.6	.0	.0	.0	.7
3-4	.0	.7	1.4	1.2	.0	.0	3.3
5-6	.0	.3	.6	1.3	1.4	.0	3.5
7	.0	.0	.6	.0	.8	.0	1.5
8-9	.0	.3	.0	.3	.1	.0	.8
10-11	.0	.0	.0	.1	.6	.0	.6
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.3	.3	.0	.6
17-19	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.3	.3	.0	.6
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.9	3.2	3.8	3.8	.0	12.6

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.0	.2	1.3	.0	.0	.0	1.5
3-4	.0	.4	3.7	2.7	.0	.0	6.8
5-6	.0	.0	2.3	1.8	.8	.0	4.9
7	.0	.0	1.0	1.3	.0	.0	2.4
8-9	.0	.0	.6	1.9	.2	.0	2.7
10-11	.0	.0	.0	1.3	.0	.0	1.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.5	.3	.0	.8
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.6	.0	.6
26-32	.0	.0	.0	.0	.3	.0	.3
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.5	8.8	9.6	2.1	.0	21.9

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.2	.0	.0	.0	.0	1.2	
1-2	.0	1.7	3.8	.0	.0	.0	5.5	
3-4	.3	1.6	4.5	.3	.0	.0	6.7	
5-6	.0	.3	2.8	.3	.3	.0	3.7	
7	.0	.0	1.1	.6	.6	.0	2.3	
8-9	.0	.3	.6	.8	.0	.0	1.6	
10-11	.0	.0	.0	.3	.0	.0	.3	
12	.0	.0	.3	.0	.0	.0	.3	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.3	.0	.3	
20-22	.0	.0	.0	.0	.3	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	5.1	13.0	2.2	1.5	.0	22.0	98.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.0	4.4	.3	.0	.0	.0	7.7	
1-2	.8	7.2	8.3	.0	.0	.0	16.3	
3-4	.6	4.7	14.6	5.5	.0	.0	25.4	
5-6	.0	1.1	10.2	4.7	3.0	.0	19.1	
7	.0	.3	3.9	3.6	1.7	.0	9.4	
8-9	.0	.6	1.4	4.7	.8	.6	8.0	
10-11	.0	.0	.0	2.8	1.9	.0	4.7	
12	.0	.0	.3	1.1	.3	.0	1.7	
13-16	.0	.0	.3	1.9	1.1	.0	3.3	
17-19	.0	.0	.0	.3	1.1	.0	1.4	
20-22	.0	.0	.0	.3	1.1	.0	1.4	
23-25	.0	.0	.3	.0	.6	.0	.8	
26-32	.0	.0	.0	.3	.6	.0	.8	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								362
TOT PCT	4.4	18.2	39.5	25.1	12.2	.6	100.0	

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	4.1	9.6	10.4	5.3	3.8	1.8	.8	1.8	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	154	6
6-7	.0	.0	2.8	5.3	5.1	3.0	5.6	1.5	3.6	2.3	1.0	.3	.0	.0	.0	.0	.0	.0	.0	123	9
8-9	.0	.0	1.0	.5	2.8	4.1	.8	.5	3.3	1.8	.0	.3	.3	.0	.0	.0	.0	.0	.0	65	10
10-11	.0	.5	.8	.5	1.3	.0	.3	.0	.3	.3	.0	.0	.0	.0	.0	.0	.3	.0	.0	16	10
12-13	.0	.0	.8	.0	1.0	.5	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	7
>13	.0	.0	.0	.5	.0	.0	.5	.0	.0	.3	.8	.8	.5	.0	.0	.0	.0	.0	.0	13	18
INDET	2.3	.3	.8	.5	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	2
TOTAL	11	19	62	70	64	45	35	15	35	22	7	5	3	0	0	1	0	0	0	394	8
PCT	2.8	4.8	15.7	17.8	16.2	11.4	8.9	3.8	8.9	5.6	1.8	1.3	.8	.0	.0	.3	.0	.0	.0	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1958-1977
(OVER-ALL) 1867-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	17.8	1.5	2.3	.0	.0	.0	.0	21.6	.0	1.5	3.8	.0	.0	1.5		71.6
NE	3.7	.9	3.7	.0	.0	.0	.0	8.3	3.7	.0	3.7	.0	.9	.0		83.5
E	8.3	5.3	3.0	.0	.0	.0	.0	16.7	.0	.0	3.0	.0	2.3	.0		78.0
SE	1.8	.0	1.4	.0	.0	.0	.0	3.2	1.8	.0	1.4	.0	1.4	.0		92.1
S	1.7	.0	.0	.0	.0	.0	.0	1.7	4.1	.0	1.7	.0	.0	.0		92.4
SW	2.2	.0	.0	.0	.0	.0	.0	2.2	1.8	.0	4.0	.0	.9	.0		91.2
W	1.4	.0	.8	.0	.0	.0	.0	2.9	.8	2.5	.0	.0	2.9	.0		90.9
NW	2.4	2.1	5.2	.0	.0	.0	.0	9.7	2.8	.0	2.4	.0	3.8	.0		81.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	5.0	.0	5.0	.0	5.0	.0		85.0
TOT PCT	4.2	1.1	2.0	.0	.0	.0	.0	7.4	1.8	.7	2.2	.0	2.0	.2		85.6
TOT OBS:	542															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.5	.7	2.2	.0	.0	.0	.0	9.4	2.9	.0	2.2	.0	3.6	.0		82.0
06&09	2.7	1.1	.0	.0	.0	.0	.0	3.8	2.2	1.1	1.6	.0	.5	.5		90.1
12&15	4.4	2.9	2.2	.0	.0	.0	.0	9.5	2.2	1.5	2.9	.0	1.5	.0		83.2
18&21	2.7	.7	3.4	.0	.0	.0	.0	6.8	.0	.7	2.7	.0	2.0	.0		87.8
TOT PCT	4.0	1.3	1.8	.0	.0	.0	.0	7.1	1.8	.8	2.3	.0	1.8	.2		86.1
TOT OBS:	606															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.3	4.0	4.4	3.2	.0	.0		11.9	15.6	14.2	3.8	14.7	11.3	8.5	14.8	10.7	19.0
NE	.4	1.7	1.9	.4	.3	.0		4.7	13.0	6.3	1.0	3.9	3.5	2.4	6.3	8.0	1.7
E	.4	1.6	2.8	.7	.0	.0		5.6	14.4	6.5	2.9	6.7	3.9	6.3	3.1	4.9	6.9
SE	.7	2.7	6.0	2.5	.4	.0		12.2	16.3	10.4	11.5	11.3	12.5	12.2	16.4	14.5	9.5
S	.0	2.9	2.7	1.4	.5	.0		7.4	15.0	8.5	.0	9.3	5.9	6.9	2.3	9.2	8.6
SW	.2	3.0	4.8	2.4	.5	.0		10.9	16.5	10.6	25.0	9.5	12.5	10.6	12.5	10.5	1.7
W	.4	4.2	11.5	6.7	.7	.2		23.7	18.0	19.0	29.8	18.3	24.2	26.2	33.6	24.3	30.2
NW	.2	4.5	10.5	4.8	.2	.0		20.3	16.5	21.3	18.3	24.2	20.3	24.6	10.9	14.3	19.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.3							3.3	.0	3.3	7.7	2.1	6.3	2.4	.0	3.6	3.4
TOT OBS	36	150	271	134	15	1	607		15.8	120	26	97	64	127	32	112	29
TOT PCT	5.9	24.7	44.6	22.1	2.5	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.7	5.4	3.1	1.6	.0		11.9	15.6	12.3	13.4	9.7	12.4
NE	1.9	1.6	.7	.5	.0		4.7	13.0	5.3	3.7	3.1	6.7
E	.6	2.8	1.7	.5	.0		5.6	14.4	5.8	5.6	5.7	5.3
SE	1.6	5.0	4.1	1.4	.2		12.2	16.3	10.6	11.8	13.1	13.5
S	1.6	3.4	1.6	.8	.0		7.4	15.0	7.0	7.8	6.0	9.0
SW	.6	5.0	4.6	.7	.0		10.9	16.5	13.2	10.7	11.0	8.7
W	1.8	10.0	9.7	1.4	.8		23.7	18.0	20.9	20.7	27.7	23.5
NW	1.5	9.0	8.4	1.2	.2		20.3	16.5	20.7	22.7	21.9	19.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.3						3.3	.0	4.1	3.7	1.9	3.5
TOT OBS	89	296	206	49	7	607		15.8	146	161	159	141
TOT PCT	14.7	48.2	33.9	8.1	1.2		100.0		100.0	100.0	100.0	100.0

NOVEMBER

PERIOD: (PRIMARY) 1958-1977
(OVER-ALL) 1867-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.1	2.1	24.7	43.8	23.3	2.1	.0	15.6	100.0	146
06&09	3.7	2.5	18.6	51.6	19.9	3.7	.0	16.3	100.0	161
12&15	1.9	2.5	22.6	47.8	22.6	1.9	.6	16.3	100.0	159
18&21	3.5	3.5	34.0	34.0	22.7	2.1	.0	14.9	100.0	141
TOT	20	16	150	271	134	15	1	15.8		607
PCT	3.3	2.6	24.7	44.6	22.1	2.5	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.4	1.1	2.9	5.7		5.8
NE	1.8	.4	1.7	1.2		4.6
E	2.0	1.0	1.8	1.9		4.3
SE	6.8	1.3	3.6	2.1		3.6
S	2.1	2.2	2.5	2.8		4.8
SW	4.5	2.1	3.3	1.0		3.4
W	8.1	4.7	6.2	2.7		3.9
NW	4.4	2.4	6.2	4.0		4.9
VAR	.0	.0	.0	.0		.0
CALM	2.1	1.0	.8	.8		3.3
TOT OBS	133	63	113	81	390	4.3
TOT PCT	34.1	16.2	29.0	20.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.6	1.2	2.1	1.0	.9	.8	.5	1.0	.0	3.9	
NE	.0	.0	.0	.4	.4	.5	.3	.0	.1	.0	3.1	
E	.2	.3	.2	.4	.6	.5	.7	.0	.0	.0	3.2	
SE	.1	.0	.3	.1	1.1	1.2	.6	.4	.0	.0	9.9	
S	.0	.0	.2	.0	.7	1.6	1.2	.0	.0	.0	5.1	
SW	.0	.0	.1	.3	1.7	.4	1.3	.3	.0	.0	6.8	
W	.0	.0	.0	1.3	1.6	1.3	1.7	.0	.2	.0	15.5	
NW	.0	.4	1.2	2.2	1.6	1.0	.9	.3	.3	.0	9.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.3	.0	.3	.3	.3	.0	.0	.0	.0	3.6	
TOT OBS	2	6	12	29	35	30	29	6	6	0	235	390
TOT PCT	.5	1.5	3.1	7.4	9.0	7.7	7.4	1.5	1.5	.0	60.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.5	.9	1.4	1.4	1.4	1.4	1.4	1.4
= OR >5000	1.4	2.5	3.0	3.0	3.0	3.0	3.0	3.0
= OR >3500	7.4	10.2	10.6	10.6	10.6	10.9	10.9	10.9
= OR >2000	12.7	17.6	18.0	18.2	18.2	18.5	18.5	18.5
= OR >1000	20.3	26.6	27.5	27.7	27.7	27.9	27.9	27.9
= OR >600	23.1	31.6	33.5	34.2	34.2	34.4	34.4	34.4
= OR >300	24.0	33.3	35.8	36.7	36.7	37.0	37.0	37.0
= OR >150	24.0	33.7	36.3	37.4	37.9	38.3	38.3	38.3
= OR > 0	24.0	33.7	36.3	37.4	38.1	38.8	38.8	38.8
TOTAL	104	146	157	162	165	168	168	168

TOTAL NUMBER OF OBS: 433

PCT FREQ NH <5/8: 61.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
15.6	17.5	11.1	10.9	6.4	6.0	7.0	9.4	15.8	.4	469

NOVEMBER

PERIOD: (PRIMARY) 1958-1977
(OVER-ALL) 1867-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.1	*	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.2	.0	.0	*	.1	.0	.0	.0	.0	.2	.6	
	TOT %	.2	.0	.1	.1	.1	.0	.0	.0	.0	.2	.7	
1/2<1	PCP	.6	.0	.0	.0	.0	.0	.2	.5	.0	.0	1.3	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	TOT %	.7	.0	.0	.0	.0	.0	.2	.6	.0	.0	1.5	
1<2	PCP	.7	.0	.0	.0	.0	.0	.0	.2	.0	.0	.9	
	NO PCP	.0	.0	.0	.0	.0	.0	.2	.6	.0	.0	.7	
	TOT %	.7	.0	.0	.0	.0	.0	.2	.8	.0	.0	1.7	
2<5	PCP	.5	.0	.2	.0	.1	*	.0	.2	.0	.0	1.1	
	NO PCP	.9	.4	.0	.4	.0	.4	.7	.4	.0	.2	3.3	
	TOT %	1.4	.4	.2	.4	.1	.4	.7	.7	.0	.2	4.5	
5<10	PCP	.5	.4	.2	.4	.0	.2	.5	.9	.0	.0	3.0	
	NO PCP	2.7	.9	1.3	1.6	1.2	1.2	3.7	4.0	.0	.2	16.7	
	TOT %	3.2	1.3	1.5	2.0	1.2	1.3	4.1	4.9	.0	.2	19.7	
10+	PCP	.2	*	.5	.0	.0	.0	.0	.0	.0	.0	.7	
	NO PCP	5.6	3.3	3.8	10.5	6.4	8.5	17.2	12.6	.0	3.2	71.2	
	TOT %	5.8	3.4	4.3	10.5	6.4	8.5	17.2	12.6	.0	3.2	71.9	
	TOT OBS												538
	TOT PCT	12.0	5.0	6.1	13.0	7.9	10.3	22.4	19.6	.0	3.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.1	.1	.1	.0	.0	.0	.0		.4	
	TOT %	.2	.0	.1	.1	.1	.0	.0	.0	.0	.2	.7	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.4	.0		.4	
	11-21	.2	.0	.0	.0	.0	.0	.2	.0	.0		.4	
	22+	.5	.0	.0	.0	.0	.0	.0	.2	.0		.7	
	TOT %	.7	.0	.0	.0	.0	.0	.2	.6	.0	.0	1.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.1	.1	.0	.0	.4	.0		.7	
	11-21	.0	.0	.0	.2	.0	.0	.0	.4	.0		.6	
	22+	.5	.0	.0	.0	.0	.0	.2	.2	.0		.9	
	TOT %	.7	.0	.0	.3	.1	.0	.2	1.0	.0	.0	2.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.4	.2	.0	.2	.1	.1	.0	.0	.0		.9	
	11-21	.7	.2	.0	.0	.0	.4	.6	*	.0		1.8	
	22+	.3	.0	.2	.2	.1	*	.2	.6	.0		1.7	
	TOT %	1.4	.4	.2	.4	.2	.5	.7	.6	.0	.2	4.6	
5<10	0-3	.2	.1	.3	.2	.0	.0	.0	.0	.0	.2	.9	
	4-10	1.0	.6	.4	*	.2	.4	.7	.9	.0		4.2	
	11-21	.8	.2	.6	1.5	.2	.6	1.7	2.6	.0		8.3	
	22+	1.2	.4	.2	.2	.7	.4	1.7	1.7	.0		6.4	
	TOT %	3.2	1.2	1.5	1.9	1.1	1.3	4.2	5.1	.0	.2	19.8	
10+	0-3	.2	.4	.2	.6	.0	.0	.3	.2	.0	3.1	5.0	
	4-10	2.4	1.0	1.4	2.5	2.8	2.5	3.7	2.8	.0		19.1	
	11-21	2.6	1.6	2.3	5.0	2.5	3.9	8.0	7.2	.0		33.0	
	22+	.6	.4	.3	2.4	1.0	2.2	5.0	2.3	.0		14.1	
	TOT %	5.7	3.3	4.2	10.4	6.3	8.6	17.0	12.3	.0	3.1	71.2	
	TOT OBS												945
	TOT PCT	11.8	5.0	6.1	13.1	7.9	10.4	22.2	19.8	.0	3.7	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1958-1977
(OVER-ALL) 1867-1977

AREA 0027 COOK STRAIT (NW)
40.1S 173.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	1.8	2.7	8.0	12.4	2.7	5.3	1.8	.9	.0	35.4	64.6	113
06&09	.7	1.4	.7	3.6	3.6	10.7	10.0	2.9	1.4	.0	35.0	65.0	140
12&15	1.3	.0	1.3	5.0	7.5	7.5	2.5	.0	2.5	.0	27.5	72.5	80
18&21	.0	1.6	5.6	8.7	12.7	7.9	9.5	.8	.8	.0	47.6	52.4	126
TOT	2	6	12	29	41	34	34	7	6	0	171	288	459
PCT	.4	1.3	2.6	6.3	8.9	7.4	7.4	1.5	1.3	.0	37.3	62.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.7	2.2	3.6	23.7	69.8	139
06&09	.5	1.1	1.1	7.1	21.3	68.9	183
12&15	.7	2.2	1.5	6.6	19.7	69.3	137
18&21	1.3	1.3	3.3	2.7	12.7	78.7	150
TOT	4	8	12	31	118	436	609
PCT	.7	1.3	2.0	5.1	19.4	71.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	3.6	11.7	22.5	65.8	111
06&09	.8	3.8	10.7	29.0	60.3	131
12&15	1.5	4.4	11.8	20.6	67.6	68
18&21	.0	7.3	17.9	30.9	51.2	123
TOT	2	21	57	115	261	433
PCT	.5	4.8	13.2	26.6	60.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.5	.2	.7	.0	6	1.4
65/69	.0	.0	.0	.0	.2	.5	.2	1.2	9	2.1
60/64	.0	.9	.0	1.2	2.1	5.3	8.8	12.0	131	30.3
55/59	.0	.0	.7	1.9	4.6	11.1	17.8	19.9	242	56.0
50/54	.0	.0	.2	.2	.7	1.9	3.2	3.5	42	9.7
45/49	.0	.0	.0	.0	.0	.0	.5	.0	2	.5
TOTAL	0	4	4	14	35	82	135	158	432	100.0
PCT	.0	.9	.9	3.2	8.1	19.0	31.3	36.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.7	.0	.2	.0	.0	.0	.0	.0	.0	.5
.2	.2	.0	.3	.2	.0	.4	.3	.0	.5
5.9	2.3	1.4	2.3	1.9	2.5	7.1	6.7	.0	.2
5.6	1.5	2.5	9.0	4.4	5.8	13.2	12.1	.0	1.9
.5	[illegible]	1.4	2.6	1.4	1.4	1.2	.7	.0	.0
.0	[illegible]	.0	.0	.0	.0	.2	.0	.0	.0
12.8	4.7	5.7	14.2	7.9	9.7	22.0	19.8	.0	3.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	72	68	61	54	51	51	60.5	145
06&09	72	70	64	59	53	52	47	59.1	197
12&15	74	68	63	57	52	50	50	57.5	162
18&21	73	68	63	58	53	48	48	57.9	193
TOT	74	70	64	59	53	50	47	58.7	697

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	10.8	17.6	21.6	22.5	27.5	78	102
06&09	.0	1.9	3.7	19.9	34.2	40.4	86	161
12&15	.0	2.7	5.5	15.5	35.5	40.9	86	110
18&21	.0	5.9	5.9	15.1	31.1	42.0	84	119
TOT	0	24	37	89	154	188	84	492

NOVEMBER

PERIOD: (PRIMARY) 1958-1977
(OVER-ALL) 1867-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.3	1	.0	.3
14/16	.0	.0	.0	.0	.0	.3	.0	.3	2	.0	.5
11/13	.0	.0	.0	.3	.8	.0	1.0	.3	9	.0	2.3
9/10	.0	.0	.0	.3	1.0	.8	.3	.0	9	.0	2.3
7/8	.0	.0	.0	.5	3.3	.5	.5	.0	19	.0	4.8
6	.0	.0	.0	.0	1.5	.3	.0	.0	7	.0	1.8
5	.0	.0	.0	2.5	5.6	1.0	.0	.0	36	.0	9.2
4	.0	.0	.0	5.6	3.8	.3	.0	.0	38	.0	9.7
3	.0	.0	.0	4.1	3.3	.0	.0	.0	29	.5	6.9
2	.0	.0	2.5	5.6	3.8	.3	.0	.0	48	.3	12.0
1	.0	.0	1.5	6.6	4.3	.0	.0	.0	49	.5	12.0
0	.0	.8	4.3	8.1	1.8	.0	.0	.0	59	1.0	14.0
-1	.0	.5	2.5	2.8	1.0	.0	.0	.0	27	.3	6.6
-2	.0	.0	2.3	2.3	.3	.0	.0	.0	19	.3	4.6
-3	.0	.5	1.5	2.0	.0	.0	.0	.0	16	.0	4.1
-4	.0	.0	1.0	1.5	.0	.0	.0	.0	10	.0	2.5
-5	.0	.3	.5	.3	.0	.0	.0	.0	4	.0	1.0
-6	.0	.3	.3	.5	.0	.0	.0	.0	4	.0	1.0
-7/-8	.3	.0	.5	.5	.0	.0	.0	.0	5	.0	1.3
-9/-10	.3	.3	.0	.0	.0	.0	.0	.0	2	.0	.5
TOTAL	2	10	67	171	120	13	7	3	393	11	382
PCT	.5	2.5	17.0	43.5	30.5	3.3	1.8	.8	100.0	2.8	97.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.5	.0	.0	.0	1.6
1-2	.6	2.1	1.4	.0	.0	.0	4.0
3-4	.0	.5	1.7	.3	.0	.0	2.0
5-6	.0	.0	.9	1.4	.0	.0	2.3
7	.0	.0	.0	.8	.0	.0	.8
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.8	.0	.0	.8
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.3	.3	.0	.0	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.7	4.9	3.7	.0	.0	12.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.9	.3	.0	.0	.0	1.7
1-2	.0	.7	.3	.0	.0	.0	1.0
3-4	.0	.0	1.0	.4	.0	.0	1.4
5-6	.0	.0	.4	.0	.6	.0	.9
7	.0	.0	.0	.3	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	1.6	1.9	.6	.6	.0	5.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3
1-2	.0	.8	.8	.0	.0	.0	1.6
3-4	.0	.5	1.9	.2	.0	.0	2.6
5-6	.0	.6	.4	.6	.0	.0	1.6
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.9	3.1	1.0	.0	.0	6.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.8	.6	.0	.0	.0	2.7
1-2	.0	.9	1.3	.0	.0	.0	2.2
3-4	.3	.6	3.0	1.0	.0	.0	5.0
5-6	.0	.0	1.9	.6	.6	.0	3.1
7	.0	.0	.0	.4	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.4	6.8	2.6	.6	.0	13.9

PERIOD: (OVER-ALL) 1963-1977 NOVEMBER AREA 0027 COOK STRAIT (NW)
40.1S 173.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.3	.0	.0	.0	1.1	.0	.9	.6	.0	.0	.0	1.4
1-2	.0	2.8	1.1	.0	.0	.0	3.9	.0	1.3	.8	.0	.0	.0	2.1
3-4	.0	.0	1.9	.4	.0	.0	2.3	.0	.3	.6	.3	.0	.0	1.2
5-6	.0	.3	.2	.0	.8	.0	1.3	.0	.3	1.3	.7	.0	.0	2.3
7	.0	.0	.2	.4	.0	.0	.6	.0	.3	.1	.4	.0	.0	.7
8-9	.0	.0	.0	.5	.0	.0	.5	.0	.0	.4	.1	.6	.0	1.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.3	.0	.6
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.9	3.7	1.7	.8	.0	10.0	.0	3.0	4.0	1.6	.9	.0	9.5

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.2	1.1	.9	.0	.0	.0	2.2	.1	.1	.6	.0	.0	.0	.9	
1-2	.0	2.1	1.9	.0	.0	.0	4.0	.3	1.9	1.4	.0	.0	.0	3.6	
3-4	.0	1.2	4.5	1.6	.0	.0	7.3	.0	.9	3.7	.7	.0	.0	5.3	
5-6	.0	.0	2.4	1.9	.0	.0	4.2	.0	.6	2.6	.6	.0	.0	3.8	
7	.0	.0	1.1	1.4	.0	.0	2.5	.0	.0	.4	1.5	.0	.0	1.9	
8-9	.0	.0	.5	.8	.0	.0	1.3	.0	.0	.4	.3	.0	.0	.6	
10-11	.0	.0	.0	.5	.0	.0	.5	.0	.0	.3	.1	.0	.0	.4	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	4.4	11.2	6.2	.0	.0	22.0	.4	3.5	9.3	3.6	.0	.0	16.8	96.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.1	6.5	3.7	.0	.0	.0	15.3	
1-2	.9	13.1	9.4	.0	.0	.0	23.3	
3-4	.3	4.0	17.6	4.8	.0	.0	26.7	
5-6	.0	1.7	9.9	5.7	2.0	.0	19.3	
7	.0	.3	1.7	5.1	.0	.0	7.1	
8-9	.0	.0	1.4	1.7	.6	.0	3.7	
10-11	.0	.0	.6	1.7	.3	.0	2.6	
12	.0	.0	.0	.9	.0	.0	.9	
13-16	.0	.0	.3	.6	.0	.0	.9	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.3	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.3	25.6	44.8	20.7	2.8	.0	100.0	352

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	8.0	12.5	11.1	4.8	1.7	.5	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	167	4
6-7	.0	.7	3.1	6.0	4.8	6.0	2.9	2.9	1.9	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	125	8
8-9	.0	1.0	1.4	1.4	2.2	2.4	3.6	.5	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	98	8
10-11	.0	1.7	1.0	.7	.0	.5	.7	.5	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	22	6
12-13	.0	.0	2.7	.5	.5	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	5
>13	.0	.0	.0	.7	1.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	7
INDET	3.4	1.0	.2	.5	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	1
TOTAL	16	51	87	87	95	45	34	21	16	0	2	0	1	0	0	0	0	0	0	415	6
PCT	3.9	12.3	21.0	21.0	13.3	10.8	8.2	5.1	3.9	.0	.5	.0	.2	.0	.0	.0	.0	.0	.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1960-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.0S 173.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	13.3	1.6	18.5	.0	.0	.0	.0	27.7	3.2	.0	3.2	.0	.0		.0	65.9
NE	5.3	.0	5.3	.0	.0	.0	.0	10.5	.0	.0	5.3	.0	1.3		.0	82.9
E	3.1	3.1	.0	.0	.0	.0	.0	6.3	.0	.0	.0	.0	5.5		.0	88.3
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0		.0	99.5
S	.0	.0	2.6	.0	.0	.0	.0	2.6	.0	.0	1.9	.0	.0		.0	95.5
SW	1.7	2.8	1.7	.0	.0	.0	.0	4.9	1.4	.0	1.4	.0	5.6		2.1	84.7
W	3.2	.0	4.5	.0	.0	.0	.9	8.6	3.9	.0	.9	.0	2.4		1.3	83.0
NW	1.8	1.0	3.0	.0	.0	.0	.0	6.3	5.9	.0	1.0	.0	5.3		1.0	81.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	10.0	10.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0		.0	80.0
TOT PCT	3.4	1.2	5.2	.0	.0	.0	.2	8.7	2.6	.0	1.4	.0	2.8		.8	83.7
TOT OBS:	503															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.8	1.7	5.0	.0	.0	.0	.0	10.7	4.1	.0	.0	.0	3.3		.8	81.0
06&09	2.4	.0	4.2	.0	.0	.0	.6	6.7	1.2	.0	1.2	.0	4.2		.6	86.1
12&15	4.2	2.8	5.6	.0	.0	.0	.7	12.0	1.4	.0	2.1	.0	1.4		.7	82.4
18&21	2.9	.7	5.1	.0	.0	.0	.0	7.2	4.3	.0	1.4	.0	1.4		.7	84.8
TOT PCT	3.7	1.2	4.9	.0	.0	.0	.4	9.0	2.7	.0	1.2	.0	2.7		.7	83.7
TOT OBS:	566															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	3.2	5.7	2.3	.7	.0		12.7	16.0	15.0	17.0	10.3	12.5	11.7	12.9	12.4	13.9
NE	.6	1.7	1.3	.2	.0	.0		3.8	9.8	5.6	.0	3.3	6.0	4.3	1.5	1.8	6.9
E	.9	1.9	3.3	.3	.0	.0		6.3	11.7	6.5	8.0	6.0	12.5	5.9	5.3	2.8	11.1
SE	.4	3.4	3.8	1.7	.6	.0		9.9	15.9	11.9	1.1	13.6	6.5	8.4	12.9	11.0	.0
S	.6	3.3	3.0	.8	.1	.0		7.8	12.7	9.3	.0	2.2	9.9	10.5	11.4	6.4	13.9
SW	.5	5.3	5.1	3.0	.3	.2		14.5	15.8	12.1	15.9	14.1	9.9	16.0	24.2	14.4	15.3
W	.4	6.6	9.9	4.9	.9	.0		22.8	16.6	23.1	23.9	29.1	15.1	21.7	8.3	26.8	20.8
NW	.3	5.2	9.9	4.5	.2	.0		20.2	16.0	14.5	29.5	21.5	24.1	18.2	20.5	23.4	18.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.0							2.0	.0	1.9	4.5	.0	3.4	3.3	3.0	.9	.0
TOT OBS	37	171	236	100	16	1	561		13.0	107	22	92	58	122	33	109	18
TOT PCT	6.6	30.5	42.1	17.8	2.9	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.0	4.8	3.8	2.0	.0		12.7	16.0	13.3	11.2	11.9	12.6
NE	1.6	1.5	.7	.0	.0		3.8	9.8	4.7	4.3	3.7	2.6
E	1.7	2.9	1.7	.0	.0		6.3	11.7	6.8	8.5	5.8	3.9
SE	1.1	4.8	2.6	1.3	.0		9.9	15.9	10.1	10.8	9.4	9.4
S	1.3	4.5	1.5	.4	.0		7.8	12.7	7.8	9.2	10.6	7.5
SW	2.6	6.4	3.5	1.6	.4		14.5	15.8	12.8	12.5	17.7	14.6
W	3.3	8.8	7.8	2.7	.1		22.8	16.6	23.3	23.7	18.9	26.0
NW	2.2	8.6	7.8	1.7	.0		20.2	16.0	17.1	22.5	18.7	22.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.0						2.0	.0	2.3	1.3	3.2	.8
TOT OBS	100	237	165	56	3	561		13.0	129	150	155	127
TOT PCT	17.8	42.2	29.4	10.0	.5		100.0		100.0	100.0	100.0	100.0

DECEMBER

PERIOD: (PRIMARY) 1960-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.0S 173.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.3	3.9	29.5	38.8	21.7	3.9	.0	15.9	100.0	129
06&09	1.3	4.7	25.3	48.7	17.3	2.7	.0	15.3	100.0	150
12&15	3.2	6.5	33.5	38.7	16.1	1.9	.0	13.7	100.0	155
18&21	.8	3.1	33.9	41.7	16.5	3.1	.8	15.4	100.0	127
TOT	11	26	171	236	100	16	1	15.0		961
PCT	2.0	4.6	30.5	42.1	17.8	2.9	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.2	2.1	2.4	5.1		5.0
NE	.7	1.2	.9	1.3		4.8
E	2.5	.5	2.0	1.0		4.1
SE	3.7	1.9	5.3	.7		4.1
S	2.3	1.7	2.6	.6		4.0
SW	4.3	3.0	4.9	1.7		4.3
W	6.1	5.9	6.9	3.4		4.2
NW	5.2	4.3	7.4	3.5		4.6
VAR	.0	.0	.0	.0		.0
CALM	1.1	.0	.8	.0		2.7
TOT OBS	109	77	124	65	375	4.4
TOT PCT	29.1	20.5	33.1	17.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.5	.5	1.6	1.2	1.6	.2	.3	.0	.0	.0	7.0	
NE	.0	.0	.3	.3	.2	.3	.3	.3	.0	.0	2.5	
E	.0	.3	.0	.0	1.5	.3	.2	.0	.0	.0	3.7	
SE	.0	.0	.0	.5	.5	.5	.3	.5	.0	.3	8.8	
S	.0	.0	.0	.0	.3	1.0	.3	.0	.3	.0	5.4	
SW	.1	.0	.1	.9	1.1	1.5	.8	.3	.3	.0	8.9	
W	.2	.0	.7	1.7	2.7	1.7	.2	.0	.0	.0	15.1	
NW	.0	.3	.0	2.9	1.7	1.9	.6	.0	.0	.0	13.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	1.6	
TOT OBS	3	4	10	28	37	28	11	4	2	1	247	375
TOT PCT	.8	1.1	2.7	7.5	9.9	7.5	2.9	1.1	.5	.3	65.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >5000	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
= OR >3500	4.1	5.3	5.3	5.3	5.3	5.3	5.5	5.5
= OR >2000	9.5	12.4	12.9	12.9	12.9	12.9	13.1	13.1
= OR >1000	16.2	21.5	22.9	23.4	23.4	23.4	23.6	23.6
= OR >600	20.5	27.4	29.4	30.1	30.5	30.5	30.8	30.8
= OR >300	20.5	27.7	30.3	31.5	32.7	32.9	33.2	33.2
= OR >150	20.5	27.7	30.5	32.0	33.2	33.7	34.1	34.1
= OR > 0	20.8	27.9	31.3	32.9	34.1	34.6	35.1	35.1
TOTAL	87	117	131	138	143	145	147	147

TOTAL NUMBER OF OBS: 419 PCT FREQ NH <5/8: 64.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
14.2	14.2	16.4	11.2	8.1	4.8	6.1	9.8	14.2	.9	457

DECEMBER

PERIOD: (PRIMARY) 1960-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.0S 173.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.3	.0	.0	.0	.0	*	.1	.2	.0	.0	.8	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.0	.0	.0	.0	*	.1	.2	.0	.0	.8	
1/2<1	PCP	.4	.0	.0	.0	.0	.0	.4	.0	.0	.0	.8	
	NO PCP	.2	.1	.1	.0	.0	.2	.3	.9	.0	.0	1.2	
	TOT %	.4	.1	.1	.0	.0	.2	.7	.2	.0	.0	2.0	
1<2	PCP	1.0	.0	.0	.0	.2	.0	.4	.2	.0	.0	1.8	
	NO PCP	.1	.0	.0	*	.1	.0	.1	.5	.0	.0	1.0	
	TOT %	1.1	.0	.0	*	.3	.0	.5	.7	.0	.0	2.8	
2<5	PCP	1.5	.2	.2	.0	.0	.0	.1	.4	.0	.0	2.4	
	NO PCP	.3	*	.0	.4	.4	.3	.1	.4	.0	.0	2.2	
	TOT %	1.8	.2	.2	.4	.4	.3	.2	.8	.0	.0	4.6	
5<10	PCP	.2	.2	.0	.0	.0	.6	.5	.2	.0	.2	2.0	
	NO PCP	2.1	.4	1.1	1.5	.5	3.0	4.6	3.5	.0	.2	17.1	
	TOT %	2.3	.6	1.1	1.5	.5	3.7	5.2	3.7	.0	.4	19.1	
10+	PCP	.0	.0	.2	.0	.0	.0	.4	.2	.0	.2	1.0	
	NO PCP	6.2	2.8	4.8	8.5	6.4	10.0	15.8	14.0	.0	1.4	69.8	
	TOT %	6.2	2.8	5.0	8.5	6.4	10.0	16.2	14.2	.0	1.6	70.8	
	TOT OBS												503
	TOT PCT	12.4	3.8	6.4	10.5	7.8	14.3	23.1	19.8	.0	2.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.3	.0	.0	.0	.0	*	.1	*	.0		.6	
	TOT %	.3	.0	.0	.0	.0	*	.1	.2	.0	.0	.8	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	11-21	.4	.1	.1	.0	.0	.2	.2	.0	.0		1.0	
	22+	.2	.0	.0	.0	.0	*	.5	.0	.0		.8	
	TOT %	.6	.1	.1	.0	.0	.2	.7	.2	.0	.0	2.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.2	.0	.0	*	.3	.0	.2	.2	.0		1.0	
	22+	.9	.0	.0	.0	.0	.0	.3	.5	.0		1.8	
	TOT %	1.1	.0	.0	*	.3	.0	.5	.7	.0	.0	2.8	
2<5	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.3	.1	.1	.0	.0	.0	.1	.1	.0		.8	
	11-21	.9	.2	.2	*	.4	.1	.0	.2	.0		2.2	
	22+	.3	.0	.0	.4	.0	.2	.1	.4	.0		1.6	
	TOT %	1.8	.3	.3	.4	.4	.3	.2	.8	.0	.0	4.7	
5<10	0-3	.0	.0	.0	.0	.0	.0	.1	.1	.0	.4	.6	
	4-10	.2	.0	.2	.4	.0	1.2	1.7	.5	.0		4.2	
	11-21	1.0	.6	.7	.7	.4	1.2	1.8	2.2	.0		8.7	
	22+	1.1	.0	.2	.4	.1	1.2	1.5	1.0	.0		5.7	
	TOT %	2.4	.6	1.1	1.5	.5	3.7	5.1	3.8	.0	.4	19.2	
10+	0-3	.7	.4	.6	.4	.6	.6	.2	.2	.0	1.6	5.3	
	4-10	1.7	1.6	1.8	3.1	3.2	3.3	4.8	3.8	.0		23.3	
	11-21	3.5	.8	2.4	3.5	1.9	3.8	7.7	7.3	.0		30.4	
	22+	.3	.2	.1	1.5	.6	2.3	3.4	2.9	.0		11.5	
	TOT %	6.2	2.8	4.9	8.4	6.4	9.9	16.1	14.2	.0	1.6	70.6	
	TOT OBS												506
	TOT PCT	12.5	3.9	6.4	10.9	7.7	14.2	22.9	19.9	.0	2.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1960-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.0S 173.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	1.8	3.7	11.0	9.2	7.3	3.7	.0	.0	.0	36.7	63.3	109
06&09	1.5	1.5	1.5	3.8	9.2	4.6	2.3	2.3	2.3	.0	29.0	71.0	131
12&15	2.6	.0	.0	1.3	6.6	10.5	1.3	.0	.0	1.3	23.7	76.3	76
18&21	.0	.0	3.2	9.7	13.7	8.1	4.8	.8	.8	.0	41.1	58.9	124
TOT	4	4	10	30	44	32	14	4	4	1	147	293	440
PCT	.9	.9	2.3	6.8	10.0	7.3	3.2	.9	.9	.2	33.4	66.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	3.3	.0	1.6	5.7	16.4	73.0	122
06&09	.0	1.8	3.6	3.6	20.0	70.9	165
12&15	.7	2.1	2.8	6.3	25.0	63.2	144
18&21	.7	3.6	1.4	3.6	15.9	74.6	138
TOT	6	11	14	27	111	400	569
PCT	1.1	1.9	2.5	4.7	19.5	70.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	6.5	19.4	17.6	63.0	108
06&09	1.6	6.5	14.6	18.7	66.7	123
12&15	3.0	3.0	4.5	22.4	73.1	67
18&21	.0	4.1	15.7	27.3	57.0	121
TOT	4	22	61	90	268	419
PCT	1.0	5.3	14.6	21.5	64.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.2	.0	.0	.0	.0	.0	1	.2
70/74	.0	.0	.0	.0	1.0	.5	1.7	.0	13	3.2
65/69	.0	.0	.0	.2	.7	1.2	2.2	5.7	41	10.1
60/64	.0	.0	.2	.0	3.4	10.8	13.5	25.1	216	53.2
55/59	.0	.0	.5	.7	2.2	5.9	8.9	13.3	128	31.5
50/54	.0	.0	.0	.7	.5	.2	.0	.2	7	1.7
TOTAL	0	0	4	7	32	76	107	180	406	100.0
PCT	.0	.0	1.0	1.7	7.9	18.7	26.4	44.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
.2	.3	.2	.0	.5	.2	.2	1.2	.0	.2
2.0	1.3	1.2	1.4	.4	1.1	1.4	1.3	.0	.0
9.1	1.5	3.8	4.5	4.1	5.0	12.5	11.5	.0	1.2
2.5	.7	1.5	3.8	2.3	6.1	8.7	6.0	.0	.0
.0	.0	.0	.4	.6	.7	.0	.0	.0	.0
13.8	3.8	6.7	10.0	7.9	13.2	23.1	20.0	.0	1.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	75	73	70	63	57	55	55	63.1	117
06&09	73	72	68	63	57	50	50	62.5	177
12&15	70	66	64	60	55	52	52	59.9	139
18&21	70	69	66	61	55	53	53	60.9	144
TOT	75	72	68	61	56	52	50	61.6	597

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	4.7	16.3	25.6	19.8	33.7	80	86
06&09	.0	2.7	9.5	17.0	32.0	38.8	84	147
12&15	.0	1.9	.9	14.2	24.5	58.5	89	106
18&21	.0	.8	5.8	17.5	30.0	45.8	86	120
TOT	0	11	36	83	126	203	85	459

DECEMBER

PERIOD: (PRIMARY) 1960-1977
(OVER-ALL) 1868-1977

AREA 0027 COOK STRAIT (NW)
40.0S 173.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.0	.3	1	.0	.3
11/13	.0	.0	.0	.3	.3	.3	.0	3	.0	.8
9/10	.0	.0	.3	.3	.5	.0	.3	5	.0	1.3
7/8	.0	.0	.0	1.3	1.3	1.1	.3	15	.0	4.0
6	.0	.0	.0	.5	.5	.5	.0	6	.0	1.6
5	.0	.0	.8	6.7	1.3	.3	.0	34	.3	8.8
4	.0	.3	.8	4.8	.8	.5	.0	27	.0	7.2
3	.0	.5	.8	1.1	1.3	.0	.0	14	.3	3.5
2	.0	.3	5.6	11.0	.3	.0	.0	64	.3	16.8
1	.3	.5	5.3	4.1	.8	.5	.0	51	.3	13.4
0	.0	1.1	7.5	5.9	1.6	.0	.0	60	.3	15.8
-1	.3	1.1	2.4	3.5	1.1	.0	.0	31	.3	8.0
-2	.3	.3	2.4	2.7	.0	.0	.0	21	.0	5.6
-3	.0	.3	2.4	1.9	.3	.0	.0	18	.0	4.8
-4	.0	.3	.8	1.3	.3	.0	.0	10	.0	2.7
-5	.0	.0	1.1	.5	.0	.0	.0	6	.0	1.6
-6	.0	.3	.5	.5	.0	.0	.0	5	.3	1.1
-7/-8	.0	.5	.0	.0	.0	.0	.0	2	.0	.5
-11/-13	.3	.0	.0	.0	.0	.0	.0	1	.0	.3
TOTAL	4	20	115	181	39	12	3	374	7	367
PCT	1.1	5.3	30.7	48.4	10.4	3.2	.8	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.9	1.2	.0	.0	.0	2.8
1-2	.6	1.0	1.2	.0	.0	.0	2.8
3-4	.0	.0	1.7	.3	.0	.0	2.0
5-6	.0	.5	.9	1.3	.3	.0	2.9
7	.0	.0	.6	.3	.0	.0	.9
8-9	.0	.0	.0	.6	.0	.0	.6
10-11	.0	.0	.0	.6	.2	.0	.8
12	.0	.0	.0	.2	.6	.0	.9
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	2.4	5.5	3.5	1.2	.0	13.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.3	.8	.7	.0	.0	.0	1.8
3-4	.0	.6	.0	.3	.0	.0	.9
5-6	.0	.3	1.0	.0	.0	.0	1.3
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.1	1.7	.3	.0	.0	4.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.4	.0	.0	.0	1.5
1-2	.0	.6	1.3	.0	.0	.0	1.9
3-4	.0	.0	1.3	.0	.0	.0	1.3
5-6	.0	.2	.6	.0	.0	.0	.9
7	.0	.3	.0	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	3.7	.3	.0	.0	6.2

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.4	.1	.0	.0	.0	.8
1-2	.0	.9	.7	.0	.0	.0	1.7
3-4	.0	1.7	2.0	.4	.0	.0	4.0
5-6	.0	.7	.9	.9	.0	.0	2.6
7	.0	.0	.1	.6	.0	.0	.7
8-9	.0	.0	.6	.0	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.4	.0	.7
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.7	4.4	2.3	.4	.0	11.1

PERIOD: (OVER-ALL) 1963-1977 DECEMBER AREA 0027 COOK STRAIT (NW)

TABLE 18 (CONT) 40.0S 173.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.5	.3	.0	.0	.0	2.1
1-2	.0	1.2	1.2	.0	.0	.0	2.4
3-4	.0	.2	.9	.2	.0	.0	1.3
5-6	.0	.0	.0	.3	.0	.0	.3
7	.0	.6	.2	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.5	2.9	.6	.2	.0	7.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.3	.9	.0	.0	.0	2.2
1-2	.3	1.0	1.8	.0	.0	.0	3.2
3-4	.0	.5	1.3	1.1	.0	.0	2.9
5-6	.0	.3	.7	.3	.0	.0	1.3
7	.0	.0	.3	.4	.0	.3	1.0
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.6	.1	.0	.7
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.1	5.4	2.5	.6	.3	12.2

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.6	.0	.0	.0	.0	1.6
1-2	.0	1.4	2.3	.0	.0	.0	3.7
3-4	.0	.5	2.8	1.7	.0	.0	4.9
5-6	.0	.6	4.2	1.1	.0	.0	5.9
7	.0	.6	.6	1.2	.0	.0	2.4
8-9	.0	.0	.9	.6	.3	.0	1.8
10-11	.0	.3	.9	.6	.0	.0	1.9
12	.0	.0	.3	.3	.2	.0	.9
13-16	.0	.0	.0	.6	.0	.0	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.8	.0	.8
23-25	.0	.0	.0	.0	.3	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.0	12.1	6.0	1.7	.0	24.8

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.9	.7	.0	.0	.0	2.6	
1-2	.1	.9	2.2	.0	.0	.0	3.2	
3-4	.0	.3	3.4	.7	.0	.0	4.4	
5-6	.0	.2	1.4	1.1	.0	.0	2.7	
7	.0	.0	.9	.6	.0	.0	1.6	
8-9	.0	.0	1.3	.7	.0	.0	2.0	
10-11	.0	.3	.0	.4	.1	.0	.8	
12	.0	.0	.0	.7	.0	.0	.7	
13-16	.0	.0	.0	.7	.3	.0	1.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	3.3	9.9	5.0	.4	.0	18.9	99.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.2	8.8	3.8	.0	.0	.0	14.8	
1-2	1.6	7.9	11.3	.0	.0	.0	20.8	
3-4	.0	3.8	13.2	4.7	.0	.0	21.7	
5-6	.0	2.8	9.7	5.0	.3	.0	17.9	
7	.0	1.6	2.8	3.1	.0	.3	7.9	
8-9	.0	.0	3.1	1.9	.3	.0	5.3	
10-11	.0	.6	1.3	1.9	.3	.0	4.1	
12	.0	.0	.3	1.9	.9	.0	3.1	
13-16	.0	.0	.0	1.9	.9	.0	2.8	
17-19	.0	.0	.0	.0	.3	.0	.3	
20-22	.0	.0	.0	.0	.9	.0	.9	
23-25	.0	.0	.0	.0	.3	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.8	25.5	45.6	20.4	4.4	.3	100.0	318

PERIOD: (OVER-ALL) 1952-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	6.5	10.7	9.6	3.4	2.9	1.0	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	137	4
6-7	.0	2.6	6.8	5.7	7.3	4.4	3.4	1.3	2.9	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	135	7
8-9	.0	1.3	2.9	1.3	1.3	2.9	3.9	1.6	1.3	.8	.3	.0	.3	.0	.0	.0	.0	.0	.0	68	8
10-11	.0	1.0	.5	.0	.5	.3	1.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	8
12-13	.0	.0	.0	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	6
>13	.0	.0	.0	.0	.0	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	4	12
INDET	2.6	.0	.5	.3	.0	.3	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	3
TOTAL	13	44	82	68	49	43	38	15	23	5	3	0	1	0	0	0	0	0	0	386	6
PCT	3.4	11.5	21.4	17.7	12.8	11.2	9.9	3.9	6.0	1.3	.8	.0	.3	.0	.0	.0	.0	.0	.0	100.0	

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PERIOD: (PRIMARY) 1939-1978
(OVER-ALL) 1863-1978

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	10.7	2.7	5.2	.0	.0	.0	.0	17.9	4.2	.7	2.3	.0	2.1	.1		72.7
NE	8.6	.5	3.0	.0	.0	.0	.0	11.5	2.4	.3	2.4	.0	2.0	.0		81.6
E	6.2	1.6	3.3	.0	.0	.0	.2	10.9	2.8	.3	1.6	.0	1.7	.0		82.8
SE	3.7	1.6	2.0	.0	.0	.0	*	6.8	2.4	.1	1.4	.1	.7	.0		88.4
S	4.4	.7	1.7	.0	.0	.0	.0	6.4	2.5	.3	1.2	.0	1.6	.2		87.8
SW	3.0	1.5	.7	.0	.0	.0	.0	5.0	2.2	.3	1.7	.0	2.3	.2		88.3
W	1.6	1.6	2.0	.0	.0	.0	.1	5.2	3.1	.5	1.1	.0	1.5	.1		88.5
NW	4.4	2.3	3.2	.0	.0	.0	.0	9.2	3.8	.4	1.9	.0	2.2	.3		82.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	1.6	1.3	1.8	.0	.0	.0	.0	4.1	1.5	.9	1.2	.0	2.9	.0		89.3
TOT PCT	4.6	1.6	2.5	.0	.0	.0	*	8.3	2.9	.4	1.6	*	1.8	.1		84.9
TOT OBS:	6215															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	4.4	1.0	1.6	.0	.0	.0	.0	7.4	3.3	.1	1.6	.1	2.8	.1		84.4
06609	4.3	1.3	2.5	.0	.0	.0	.1	7.6	2.5	.4	1.2	.0	1.7	.1		86.6
12615	4.8	2.3	3.3	.0	.0	.0	.1	9.9	2.2	.7	1.9	.0	1.0	.1		84.2
18621	5.1	1.3	2.6	.0	.0	.0	.1	8.7	3.3	.2	1.8	.0	1.2	.1		84.9
TOT PCT	4.6	1.6	2.5	.0	.0	.0	*	8.3	2.9	.3	1.6	*	1.7	.1		85.1
TOT OBS:	6718															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	3.8	4.1	1.6	.4	*		10.6	14.4	11.7	8.8	10.6	10.6	9.7	10.0	10.5	13.6
NE	.6	2.2	1.7	.4	.2	*		5.1	11.8	6.0	5.8	4.5	4.1	4.9	3.6	5.8	5.4
E	.5	2.9	3.2	1.2	.2	*		8.0	14.1	7.9	8.7	8.7	8.8	8.3	7.9	6.4	9.6
SE	.4	3.7	6.3	3.4	1.5	.1		15.3	18.2	15.7	14.6	14.8	14.8	13.0	17.7	16.2	11.3
S	.6	3.2	3.4	1.3	.5	.1		9.1	14.6	8.9	4.8	6.9	9.1	10.0	9.2	9.8	13.3
SW	.6	3.2	5.2	2.2	.7	.1		11.9	16.4	11.6	10.7	11.7	10.6	12.3	12.2	14.0	9.0
W	.6	5.0	8.4	5.0	.8	.1		19.9	16.9	18.1	21.6	20.5	20.0	20.0	18.1	20.8	21.2
NW	.6	4.6	8.5	2.6	.3	*		16.7	15.2	17.2	20.5	19.3	17.7	16.1	16.3	13.3	13.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.4							3.4	.0	3.1	4.5	3.0	4.3	3.6	5.0	3.1	2.8
TOT OBS							7085		15.3	1390	336	1234	620	1553	436	1208	308
TOT PCT	8.1	28.4	40.9	17.7	4.5	.5		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.2	4.6	2.8	.9	.1		10.6	14.4	11.2	10.6	9.8	11.1
NE	1.7	2.2	.8	.3	.1		5.1	11.8	6.0	4.4	4.6	5.7
E	1.6	3.5	2.3	.6	*		8.0	14.1	8.0	8.8	8.2	6.9
SE	1.7	5.4	5.3	2.5	.5		15.8	18.2	15.4	14.8	15.6	15.2
S	2.1	3.9	2.1	.8	.2		9.1	14.6	8.2	7.7	9.9	10.6
SW	1.7	4.9	3.8	1.3	.2		11.9	16.4	11.3	11.3	12.2	13.0
W	2.4	7.8	7.0	2.3	.3		19.9	16.9	18.8	20.3	19.6	21.0
NW	2.0	7.9	5.5	1.2	.1		16.7	15.2	17.8	18.7	16.2	13.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.4						3.4	.0	3.3	3.5	3.9	3.0
TOT OBS						7085		15.3	1726	1894	1989	1516
TOT PCT	18.8	40.2	29.6	9.9	1.4		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.3	3.8	26.9	42.1	18.2	5.0	.7	15.9	100.0	1726
06&09	3.5	4.0	26.3	42.9	17.9	4.9	.4	15.8	100.0	1854
12&15	3.9	5.2	30.2	39.6	17.5	3.3	.2	14.5	100.0	1989
18&21	3.0	5.6	30.1	39.0	18.9	4.8	.5	15.2	100.0	1516
TOT								15.3		7085
PCT	3.4	4.6	28.4	40.9	17.7	4.5	.5		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.1	1.4	3.6	3.7		5.5
NE	1.3	.6	1.7	1.4		5.0
E	2.9	.9	2.6	1.8		4.3
SE	5.5	2.3	4.9	3.0		4.2
S	3.1	1.6	2.3	1.6		4.1
SW	3.8	3.0	4.3	1.1		3.9
W	6.3	4.2	6.4	2.9		4.1
NW	4.1	2.7	6.5	3.9		4.8
VAR	.0	.0	.0	.0		.0
CALM	2.0	.6	.8	.4		2.9
TOT OBS					4205	4.4
TOT PCT	31.1	17.4	32.8	18.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.5	.1	.6	1.3	1.9	.9	.4	.1	.1	.1	4.8	
NE	.1	*	.3	.5	.6	.6	.3	.1	*	.1	2.6	
E	.2	.1	.2	.7	.8	.6	.3	.1	.1	*	4.6	
SE	.4	*	.3	1.2	1.5	1.5	.6	.2	.1	*	9.8	
S	.1	*	.2	.6	.8	.9	.3	*	*	.0	5.7	
SW	.1	*	.1	.7	1.3	1.2	.6	.1	*	.0	8.0	
W	.2	*	.4	1.4	1.7	1.5	.5	.1	*	*	13.0	
NW	.3	.1	.4	1.7	1.8	1.9	.7	.1	*	*	9.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.1	*	.1	.2	.3	.0	*	*	*	3.0	
TOT PCT	2.1	.6	2.4	8.4	10.7	9.4	3.7	.9	.5	.3	60.9	4205 100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	.6	.7	.8	.8	.8	.8	.8	.8
= OR >9000	1.2	1.5	1.7	1.7	1.7	1.7	1.7	1.7
= OR >3500	3.8	5.1	5.4	5.5	5.5	5.5	5.5	5.5
= OR >7000	9.9	13.9	14.7	15.0	15.0	15.0	15.1	15.1
= OR >1000	17.6	23.9	25.5	25.9	25.9	25.9	26.0	26.0
= OR >600	21.9	30.5	33.3	33.8	34.0	34.0	34.1	34.1
= OR >300	22.6	31.8	35.2	35.8	36.1	36.2	36.3	36.3
= OR >150	22.8	32.1	35.6	36.3	36.6	36.8	36.9	36.9
= OR > 0	23.1	33.1	37.1	38.0	38.5	38.8	38.9	38.9

TOTAL NUMBER OF OBS: 4498

PCT FREQ NH <5/8: 61.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
13.8	14.9	13.0	10.9	7.8	5.9	8.6	9.6	14.0	1.6	4897

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.1	*	*	*	*	*	*	.1	.0	.0	.3	
<1/2	NO PCP	*	*	*	*	*	*	*	*	.0	*	.2	
	TOT %	.1	.1	.1	*	*	.1	*	.1	.0	*	.5	
	PCP	.1	.1	*	*	.0	*	.1	.1	.0	.0	.5	
1/2<1	NO PCP	.1	.1	.1	*	*	.1	.2	.1	.0	.0	.6	
	TOT %	.2	.1	.1	*	*	.1	.2	.2	.0	.0	1.1	
	PCP	.3	*	.1	*	*	*	.1	.1	.0	*	.6	
1<2	NO PCP	.1	*	*	.1	*	*	.1	.2	.0	*	.5	
	TOT %	.4	*	.1	.1	.1	.1	.1	.2	.0	*	1.1	
	PCP	.5	.2	.2	.3	.2	*	.2	.4	.0	.0	2.1	
2<5	NO PCP	.5	.1	.1	.4	.2	.3	.4	.5	.0	.1	2.6	
	TOT %	1.0	.3	.4	.7	.3	.4	.6	.8	.0	.1	4.7	
	PCP	.6	.2	.3	.4	.2	.3	.4	.6	.0	*	3.3	
5<10	NO PCP	2.4	1.2	1.2	4.0	1.9	2.8	5.0	3.6	.0	.5	22.6	
	TOT %	3.1	1.4	1.5	4.4	2.1	3.2	5.3	4.3	.0	.5	25.9	
	PCP	.2	.1	.2	.3	.2	.2	.2	.2	.0	.1	1.6	
10+	NO PCP	5.6	3.1	5.6	9.9	6.3	8.0	13.1	10.7	.0	2.8	65.2	
	TOT %	5.8	3.3	5.8	10.2	6.4	8.2	13.3	10.9	.0	2.9	66.8	
	TOT OBS												6209
	TOT PCT	10.5	5.2	8.0	15.6	9.0	12.0	19.6	16.5	.0	3.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	*	*	.0	.0	.0	.0	*	.0	*	.1	
<1/2	4-10	*	.0	*	*	.0	*	.0	*	.0		.1	
	11-21	*	.0	.0	.0	*	*	.0	.1	.0		.1	
	22+	.1	*	*	*	*	*	*	.1	.0		.3	
	TOT %	.1	.1	.1	*	*	.1	*	.1	.0	*	.6	
	0-3	.0	*	*	.0	.0	.0	.0	.0	.0	.0	*	
1/2<1	4-10	*	*	*	*	.0	*	*	.1	.0		.2	
	11-21	.1	*	.1	.0	.0	*	.1	*	.0		.3	
	22+	.1	*	*	*	*	.1	.1	.1	.0		.5	
	TOT %	.2	.1	.1	*	*	.1	.2	.2	.0	.0	1.1	
	0-3	.0	.0	*	.0	.0	*	*	*	.0	*	.1	
1<2	4-10	.1	*	*	*	*	.0	.0	*	.0		.2	
	11-21	*	.0	.1	.1	*	*	*	.1	.0		.4	
	22+	.2	*	*	*	*	*	.1	.1	.0		.6	
	TOT %	.4	*	.1	.2	.1	*	.2	.3	.0	*	1.3	
	0-3	*	*	*	.0	.0	.0	*	*	.0	.1	.1	
2<5	4-10	.2	.1	.1	.1	.1	*	*	.1	.0		.7	
	11-21	.4	.1	.2	.2	.2	.2	.3	.3	.0		1.9	
	22+	.4	.1	.1	.5	.1	.2	.3	.4	.0		2.2	
	TOT %	1.0	.4	.4	.8	.4	.4	.6	.9	.0	.1	4.9	
	0-3	.2	.1	.1	.2	.1	.1	.1	.1	.0	.5	1.6	
5<10	4-10	.7	.5	.5	.6	.6	.7	1.0	.8	.0		5.4	
	11-21	1.4	.5	.5	1.7	.9	1.3	2.2	2.3	.0		10.8	
	22+	.8	.2	.4	1.9	.5	1.0	2.0	1.0	.0		7.9	
	TOT %	3.0	1.4	1.5	4.4	2.1	3.1	5.3	4.3	.0	.5	25.6	
	0-3	.4	.4	.4	.3	.3	.5	.5	.3	.0	2.9	6.1	
10+	4-10	2.7	1.6	2.1	2.9	2.5	2.4	3.9	3.5	.0		21.5	
	11-21	2.3	1.1	2.4	4.4	2.2	3.6	5.8	5.7	.0		27.5	
	22+	.4	.2	.9	2.5	1.1	1.7	3.2	1.3	.0		11.4	
	TOT %	5.8	3.2	5.7	10.1	6.4	8.2	13.4	10.9	.0	2.9	66.5	
	TOT OBS												6901
	TOT PCT	10.6	5.2	8.0	15.5	8.9	11.9	19.7	16.7	.0	3.5	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.7	.7	2.3	8.3	10.1	9.0	3.4	1.1	.3	.7	36.6	63.4	1291
06&09	2.0	1.1	1.8	7.7	10.7	9.5	3.3	1.1	.6	.1	38.1	61.9	1347
12&15	3.3	.3	1.4	5.8	8.3	8.6	2.2	.5	.7	.3	31.4	68.6	971
18&21	2.8	.2	3.0	9.0	12.7	9.2	5.1	.7	.5	.0	43.2	56.8	1121
TOT PCT	2.0	.6	2.2	7.8	10.5	9.2	3.6	.9	.5	.3	37.5	62.5	4730 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.6	.9	1.2	4.1	26.6	66.6	1638
06&09	.5	1.0	1.3	5.3	24.2	67.8	1860
12&15	.8	1.2	1.1	5.5	26.2	65.2	1779
18&21	.6	1.1	1.3	4.6	25.0	67.4	1529
TOT PCT	.6	1.1	1.2	4.9	25.4	66.8	6806 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.7	4.1	14.7	23.4	61.9	1250
06&09	1.9	5.3	16.7	23.7	59.6	1288
12&15	3.4	5.8	14.2	20.4	65.5	884
18&21	2.7	6.3	18.0	27.0	55.0	1076
TOT PCT	2.0	5.2	15.9	23.9	60.2	4498 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.0	.0	*	.0		*
75/79	.0	.0	*	.0	*	.1	.1	*		.2
70/74	.0	*	*	.1	.2	.5	1.0	.7		2.5
65/69	.0	.1	*	.1	.5	1.2	2.4	5.1		9.5
60/64	.0	.1	.1	.2	1.3	5.5	8.9	11.9		28.3
55/59	.0	.1	.5	.7	2.7	7.8	12.4	10.9		35.1
50/54	.0	.0	.3	.6	2.3	4.8	8.1	5.7		21.8
45/49	.0	.0	*	.1	.3	.6	.8	.6		2.4
40/44	.0	.0	.0	.0	.0	*	*	.1		.1
TOTAL PCT	.0	.4	1.0	1.8	7.7	20.4	33.7	35.0	4891	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

TEMP F	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.0	.0	.0	.0	.0	.0	.0	*	.0	.0
75/79	*	*	.0	*	*	*	*	.1	*	.0	*
70/74	.7	.2	.1	.2	.1	.2	.3	.6	.0	.2
65/69	1.4	.7	.6	1.1	.5	.8	1.9	1.9	.0	.3
60/64	3.4	1.1	2.0	3.7	1.8	3.3	6.8	5.5	.0	.7
55/59	4.1	1.8	2.7	4.8	2.5	4.8	7.4	6.2	.0	.9
50/54	1.1	1.2	2.5	5.3	2.7	2.8	3.6	1.9	.0	.7
45/49	.1	.1	.2	.6	.8	.3	.1	.1	.0	.1
40/44	.0	.0	.0	.0	.1	*	*	.0	.0	*
TOTAL PCT	10.8	5.1	8.1	15.8	8.5	12.2	20.3	16.2	.0	3.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	81	69	66	60	54	51	45	59.8	1792
06&09	81	68	64	59	53	51	43	59.2	2016
12&15	74	65	62	58	52	50	45	57.5	2041
18&21	73	65	63	58	52	49	41	58.0	1615
TOT	81	68	64	58	52	50	41	58.6	7464

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	5.8	11.6	22.9	30.5	29.2	81	1163
06&09	.0	2.3	7.5	21.7	37.0	31.5	84	1548
12&15	.0	2.0	6.4	17.8	35.8	38.0	86	1418
18&21	.0	2.9	5.5	19.9	29.7	41.9	86	1179
TOT	0	157	404	1076	1780	1891	84	5308

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	1	.0	*
17/19	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	*	2	.0	*
14/16	.0	.0	.0	.0	.0	*	*	.1	.1	.0	*	12	.0	.3
11/13	.0	.0	.0	*	.1	.2	.2	.4	*	*	.0	50	.0	1.0
9/10	.0	.0	.0	.1	.1	.2	.5	.1	.2	*	.0	62	*	1.3
7/8	.0	.0	.0	*	.4	1.0	1.1	.4	.2	*	.0	154	*	3.1
6	.0	.0	.0	*	.2	1.2	.3	.2	.0	.0	.0	95	*	1.9
5	.0	.0	*	.3	1.6	3.0	.7	.6	.1	*	.0	301	.1	6.3
4	.0	.1	*	1.3	2.1	2.1	.9	.5	*	.0	.0	326	.1	6.9
3	.0	.0	*	.4	2.1	1.6	.9	.2	*	.0	.0	243	.1	4.9
2	.0	.1	.2	2.8	3.8	3.2	1.3	.2	*	.0	.0	547	.2	11.5
1	.0	*	.2	2.3	3.0	2.6	1.1	.2	.0	.0	.0	434	.2	9.2
0	.0	.1	1.4	4.7	4.1	3.5	1.5	.2	*	.0	.0	716	.5	15.0
-1	.0	*	1.0	2.9	1.8	1.9	.6	*	.0	.0	.0	372	.2	7.9
-2	*	.1	1.3	2.5	2.0	1.5	.2	*	.0	.0	.0	345	.1	7.5
-3	.0	.1	1.8	2.1	1.5	.8	.2	.0	.0	.0	.0	266	.1	5.8
-4	.0	.2	1.1	1.7	1.4	.7	.1	.0	.0	.0	.0	231	.1	4.9
-5	.0	.4	1.3	1.1	.7	.7	.1	*	.0	.0	.0	196	.0	4.4
-6	.0	.3	.5	.5	.3	.2	*	.0	.0	.0	.0	85	*	1.9
-7/-8	.0	.3	.8	.5	.4	.2	.0	.0	.0	.0	.0	97	.0	2.2
-9/-10	.1	.2	.5	.2	.2	*	.0	.0	.0	.0	.0	53	.0	1.2
-11/-13	.0	.4	.2	*	.0	.0	.0	.0	.0	.0	.0	30	.0	.7
-14/-16	.0	.1	*	*	.0	.0	.0	.0	.0	.0	.0	9	.0	.2
-17/-19	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL												4628		
PCT	.1	2.4	10.0	23.6	25.7	24.5	9.8	3.1	.7	.1	*	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.8	.3	.0	.0	.0	1.4
1-2	.4	1.7	.9	.0	.0	.0	3.0
3-4	.1	.6	1.8	.4	.0	.0	2.9
5-6	.0	*	.7	.5	.1	.0	1.3
7	.0	.1	.4	.3	.1	.0	.8
8-9	.0	.0	.2	.2	.1	.0	.4
10-11	.0	.0	.1	.2	.1	.0	.4
12	.0	*	.0	*	.1	*	.1
13-16	.0	.0	*	.1	*	.0	.2
17-19	.0	.0	.0	.0	*	.0	*
20-22	.0	.0	.0	*	.0	.0	*
23-25	.0	.0	*	.0	.0	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.2	4.4	1.8	.4	*	10.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.5	.2	.0	.0	.0	1.0
1-2	.1	1.1	.5	.0	.0	.0	1.7
3-4	*	.4	.6	.1	.0	.0	1.1
5-6	.0	.2	.4	.1	.1	.0	.7
7	.0	*	.2	.1	.0	.0	.3
8-9	*	*	*	*	.1	*	.2
10-11	.0	.0	*	*	*	.0	.1
12	.0	*	.0	*	.1	.0	.2
13-16	.0	.0	.0	*	*	.0	*
17-19	.0	.0	.0	.0	*	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	*	.0	.0	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.1	1.9	.4	.3	*	5.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.8	.1	.0	.0	.0	1.1
1-2	.1	.8	.7	.0	.0	.0	1.7
3-4	*	.6	1.1	.1	.0	.0	1.9
5-6	.0	.1	.7	.4	.0	.0	1.2
7	.0	.1	.3	.5	*	.0	.8
8-9	*	*	.2	.2	*	*	.4
10-11	.0	.0	.1	.2	*	.0	.3
12	.0	.0	.0	.1	*	.0	.1
13-16	.0	.0	*	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	*	.0	.0	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.4	3.2	1.5	.1	*	7.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.0	.2	.0	.0	.0	1.3
1-2	.1	1.4	1.3	.0	.0	.0	2.8
3-4	.1	.9	2.5	.6	.0	.0	4.0
5-6	.0	.2	1.6	.9	.2	.0	2.9
7	.0	.1	.8	.9	.2	.0	1.9
8-9	.0	*	.2	.4	.2	*	.9
10-11	.0	*	.1	.6	.3	.0	1.0
12	.0	.0	*	.1	.1	*	.3
13-16	.0	.0	.1	.3	.4	*	.9
17-19	.0	.0	*	.0	.1	.2	*
20-22	.0	.0	.0	*	.0	.1	.0
23-25	.0	.0	*	.0	.0	.1	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.6	6.8	4.0	1.7	.1	16.6

PERIOD: (OVER-ALL) 1963-1978

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TABLE 18 (CONT)

AREA 0027 COOK STRAIT (NW)
40.1S 173.9E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	1.2	.1	.0	.0	.0	1.3	.2	.7	.3	.0	.0	.0	1.2
1-2	.2	1.3	1.1	.0	.0	.0	2.7	.2	1.2	.9	.0	.0	.0	2.3
3-4	.1	.5	1.0	.3	.0	.0	1.9	*	.7	1.8	.5	.0	.0	3.0
5-6	.0	.1	.6	.4	.1	.0	1.2	*	.1	1.3	.6	.2	.0	2.2
7	.0	.1	.4	.2	.2	.0	.9	.0	.1	.7	.3	.1	*	1.2
8-9	.0	*	.1	.2	*	.0	.3	*	.1	.2	.3	.1	.0	.7
10-11	.0	.0	.1	*	*	.0	.1	.0	.0	.2	.3	.2	*	.6
12	.0	.0	*	*	.0	.0	.1	.0	.0	.0	.1	*	.0	.1
13-16	.0	*	*	.1	.1	*	.3	.0	*	.0	.2	.1	*	.3
17-19	.0	.0	.0	.0	*	.0	*	.0	.0	.0	*	.1	.0	.1
20-22	.0	.0	.0	*	.0	.0	*	.0	.0	*	*	.1	.0	.1
23-25	.0	.0	*	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.1
33-40	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*	.0	.0	*
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.2	3.4	1.3	.5	*	8.9	.5	2.8	5.4	2.2	.9	*	11.8

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.3	1.2	.3	.0	.0	.0	1.8	.2	1.1	.4	.0	.0	.0	1.7	
1-2	.1	1.9	1.8	.0	.0	.0	3.8	.1	1.9	2.1	.0	.0	.0	4.2	
3-4	.0	1.0	3.3	1.6	.0	.0	5.9	*	.9	3.3	.4	.0	.0	4.6	
5-6	.0	.2	2.1	1.3	.1	.0	3.8	.0	.2	1.9	.6	*	.0	2.7	
7	.0	.1	.9	.8	.1	.0	1.9	.0	*	.6	.5	.1	.0	1.2	
8-9	*	*	.3	.4	.1	.0	.9	.0	*	.3	.4	.1	.0	.7	
10-11	.0	*	.1	.5	*	*	.8	.0	*	.1	.2	*	.0	.4	
12	.0	.0	*	.1	*	.0	.2	.0	.0	.1	.2	.0	.0	.2	
13-16	.0	.0	*	.3	.1	*	.4	.0	.0	*	.1	*	*	.1	
17-19	.0	*	.0	.1	*	.0	.1	.0	.0	.0	.1	*	.0	.1	
20-22	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	*	.1	.0	.1	
23-25	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	4.4	8.8	5.2	.7	.1	19.7	.4	4.2	8.7	2.4	.3	*	16.1	96.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.6	7.1	1.7	.0	.0	.0	14.4	
1-2	1.5	11.7	9.2	.0	.0	.0	22.4	
3-4	.3	5.5	15.3	4.0	.0	.0	25.1	
5-6	*	1.1	9.3	4.8	.8	.0	16.0	
7	.0	.4	4.1	3.6	.7	*	8.8	
8-9	.1	.2	1.4	2.1	.6	*	4.5	
10-11	.0	.1	.7	2.0	.8	.1	3.6	
12	.0	.1	.1	.7	.3	.1	1.3	
13-16	.0	*	.2	1.1	.8	.1	2.2	
17-19	.0	.1	.0	.2	.4	*	.7	
20-22	.0	.0	.1	.1	.4	.0	.5	
23-25	.0	.0	.1	.0	.1	.0	.2	
26-32	.0	.0	.0	*	.1	*	.1	
33-40	.0	.0	.0	*	.0	.0	*	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	*	*	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								4080
TOT PCT	7.5	26.3	42.3	18.6	5.0	.3	100.0	

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	7.6	9.6	8.0	4.5	2.7	1.7	.6	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	1644	5
6-7	.0	1.3	4.8	5.8	6.7	3.8	3.2	1.8	2.4	.7	.5	.1	.1	.0	.0	.0	.0	.0	.0	1660	7
8-9	.0	.6	1.7	1.5	2.4	2.5	2.4	.8	1.6	.9	.3	.1	.2	.0	.0	.0	.0	.0	.0	703	9
10-11	.0	.8	.6	.5	1.0	.8	.6	.3	.5	.2	.2	*	.1	*	*	*	.0	.0	.0	262	9
12-13	.0	.0	1.2	.3	.3	.3	.1	.2	.1	*	*	.0	*	.0	.0	.0	.0	.0	.0	119	6
>13	.0	.0	.0	.3	.3	.2	.2	.1	.1	.1	.2	.1	*	*	.0	*	.0	.0	.0	82	13
INDET	4.0	.5	.6	.4	.3	.4	.3	.1	.2	*	.0	.0	.0	.0	.0	.0	*	.0	.0	308	3
TOTAL																				4578	7
PCT	4.8	10.9	18.4	16.8	15.7	10.7	8.6	3.9	5.8	2.3	1.2	.4	.4	.1	*	.1	*	.0	.0	100.0	

PERIOD: (PRIMARY) 1939-1978
(OVER-ALL) 1863-1978

AREA 0027 COOK STRAIT (NW)
40.1S 173.5E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
77/78	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
75/76	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
73/74	.2	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	4	.1
71/72	1.2	.7	1.1	.5	.2	.0	.0	.0	.0	.0	.0	.5	20	.4
69/70	3.2	4.1	3.0	1.8	.0	.0	.0	.0	.0	.0	.0	.5	62	1.1
67/68	8.5	10.3	6.8	6.3	1.6	1.2	.0	.0	.0	.2	.0	3.7	186	3.4
65/66	14.8	19.2	12.8	9.4	3.5	.5	.0	.0	.2	.0	.7	7.7	334	6.1
63/64	28.9	22.3	21.4	24.0	10.4	.7	.8	.2	.5	.8	4.7	14.9	608	11.2
61/62	19.2	12.0	12.3	33.4	15.1	5.5	1.0	.7	.9	2.3	10.3	19.8	570	10.5
59/60	13.8	8.1	14.8	14.6	25.1	14.0	5.6	3.8	3.2	5.9	20.1	23.5	694	12.8
57/58	14.2	21.5	22.3	6.0	25.7	24.9	17.6	8.8	9.4	20.1	23.7	15.6	968	17.8
55/56	2.0	1.5	5.2	1.8	12.0	36.5	31.5	25.1	29.7	36.6	24.6	10.0	949	17.5
53/54	.4	.0	.0	1.6	4.7	9.7	29.4	28.2	27.1	23.2	13.4	2.1	604	11.1
51/52	.0	.0	.0	.3	1.0	4.0	7.9	26.3	21.8	8.4	1.3	.9	309	5.7
49/50	.0	.0	.0	.0	.6	1.9	3.8	5.3	4.6	2.1	.7	.2	82	1.5
47/48	.0	.0	.0	.0	.2	.5	1.0	.5	1.4	.2	.2	.7	20	.4
45/46	.0	.0	.0	.0	.0	.7	1.3	1.2	.7	.2	.4	.0	19	.3
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	2	*
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	494	582	439	383	510	422	391	419	435	478	448	430	5431	100.0
MEAN	62.5	62.7	61.7	62.1	59.0	56.5	54.8	53.8	54.0	55.4	57.4	60.2	58.3	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1015	1012	1014	1013	1014	1016	1014	1016	1014	620
FEB	1017	1018	1015	1016	1016	1018	1017	1015	1016	709
MAR	1018	1020	1017	1015	1019	1021	1017	1020	1018	596
APR	1015	1014	1015	1016	1015	1014	1014	1018	1015	452
MAY	1013	1013	1013	1014	1015	1013	1014	1011	1014	604
JUN	1013	1009	1012	1013	1013	1013	1013	1011	1013	578
JUL	1013	1010	1012	1013	1011	1012	1011	1013	1012	530
AUG	1015	1012	1011	1016	1016	1015	1014	1012	1014	486
SEP	1013	1009	1011	1011	1014	1010	1013	1011	1012	518
OCT	1016	1015	1015	1017	1015	1013	1014	1015	1015	607
NOV	1014	1013	1014	1015	1013	1012	1014	1013	1014	625
DEC	1012	1008	1012	1013	1012	1012	1012	1013	1012	579
ANN	1015	1013	1013	1014	1014	1014	1014	1014	1014	6904
OBS	1326	266	1338	606	1483	366	1314	205		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	992	996	1002	1009	1015	1020	1025	1027	1030
FEB	990	997	1005	1013	1017	1020	1025	1028	1031
MAR	984	1001	1005	1013	1019	1023	1028	1031	1032
APR	986	995	1000	1009	1016	1022	1027	1030	1034
MAY	985	988	996	1007	1014	1021	1028	1032	1033
JUN	983	984	995	1007	1014	1020	1027	1033	1038
JUL	979	989	995	1003	1012	1020	1027	1030	1039
AUG	984	992	998	1007	1014	1022	1028	1031	1036
SEP	988	989	995	1007	1013	1018	1029	1032	1034
OCT	988	996	1000	1010	1016	1020	1029	1033	1036
NOV	987	995	999	1008	1014	1019	1025	1028	1030
DEC	993	996	999	1007	1012	1017	1023	1027	1029

JANUARY

PERIOD: (PRIMARY) 1965-1978
(OVER-ALL) 1869-1978

AREA 0028 COOK STRAIT
41.5S 174.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	3.7	.0	1.1	.0	.0	.0	.0	4.8	.0	.0	1.8	.0	4.8		.0	88.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.7	.0	7.3		.0	83.9
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
SE	.0	.0	.4	.0	.0	.0	.0	.4	3.3	.0	5.3	.0	.0		.0	91.1
S	4.4	2.4	3.6	.0	.0	.0	.0	10.4	1.8	.0	2.2	.0	.8		.0	84.7
SW	6.2	.0	5.2	.0	.0	.0	.0	11.3	7.2	.0	8.2	.0	2.1		.0	71.1
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.3		.0	85.7
NW	.4	1.8	.0	.0	.0	.0	.0	2.2	.0	.0	1.8	.0	2.2		.0	93.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	7.7	.0	7.7	.0	.0	.0	.0	7.7	.0	.0	.0	.0	.0		.0	92.3
TOT PCT	2.8	.7	1.7	.0	.0	.0	.0	5.1	1.1	.0	3.2	.0	3.2		.0	87.5
TOT OBS:	534															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.2	1.2	.8	.0	.0	.0	.0	5.2	1.2	.0	2.4	.0	3.6		.0	87.6
06&09	1.2	1.2	1.2	.0	.0	.0	.0	3.6	.0	.0	4.8	.0	1.2		.0	90.4
12&15	3.4	.7	1.4	.0	.0	.0	.0	4.7	2.0	.0	3.4	.0	3.4		.0	86.5
18&21	1.1	1.1	4.4	.0	.0	.0	.0	6.7	1.1	.0	2.2	.0	2.2		.0	87.8
TOT PCT	2.6	1.1	1.6	.0	.0	.0	.0	5.1	1.2	.0	3.0	.0	3.0		.0	87.7
TOT OBS:	571															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.2	7.5	15.5	7.3	2.1	.0		93.6	17.4	42.1	36.8	42.0	30.6	23.8	42.6	31.0	25.0
NE	*	4.2	4.6	1.2	.3	.0		10.2	13.9	9.6	13.0	13.4	12.1	10.7	5.9	.0	9.4
E	.5	.6	.7	.1	.0	.0		1.9	11.0	1.3	1.4	.0	.9	3.7	.0	.0	4.3
SE	.7	4.2	5.7	1.2	*	.0		11.8	12.6	12.5	14.1	7.1	15.1	8.6	11.8	10.0	12.0
S	.5	6.7	8.3	5.5	1.0	.0		22.1	16.5	21.3	24.3	7.1	16.8	26.0	11.8	29.0	26.4
SW	.2	2.0	1.9	.5	.0	.0		4.6	13.2	2.2	1.1	3.6	3.4	5.7	10.3	21.0	5.1
W	.0	.5	1.1	.4	.0	.0		2.1	15.8	2.8	1.6	3.6	2.6	1.2	7.4	.0	.0
NW	.2	2.6	5.9	2.5	.7	.0		11.3	18.0	7.5	5.9	23.2	16.8	16.2	4.4	5.0	14.9
VAR	.0	.0	.3	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.4							2.4	.0	.7	1.8	.0	1.7	4.1	5.9	4.0	2.9
TOT OBS	33	165	251	109	24	0	582		15.6	136	110	28	58	122	34	25	69
TOT PCT	5.7	28.4	43.1	18.7	4.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.8	12.6	12.9	4.8	.0		93.6	17.4	39.7	34.3	27.9	26.6
NE	2.3	5.1	2.1	.8	.0		10.2	13.9	11.1	12.5	9.6	6.9
E	.5	1.0	.5	.0	.0		1.9	11.0	1.3	.6	2.9	3.2
SE	2.4	6.7	2.4	.4	.0		11.8	12.6	13.2	12.5	9.3	11.4
S	4.0	8.2	6.6	3.1	.2		22.1	16.5	22.7	13.7	22.9	27.1
SW	.3	3.4	.6	.3	.0		4.6	13.2	1.7	3.5	6.7	9.3
W	.0	1.2	.7	.1	.0		2.1	15.8	2.2	2.9	2.6	.0
NW	.5	4.3	4.8	1.7	.0		11.3	18.0	6.8	18.9	13.6	12.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.4						2.4	.0	1.2	1.2	4.3	3.2
TOT OBS	94	247	175	65	1	582		15.6	246	86	196	94
TOT PCT	16.2	42.4	30.1	11.2	.2		100.0		100.0	100.0	100.0	100.0

JANUARY

PERIOD: (PRIMARY) 1965-1978
(OVER-ALL) 1869-1978

AREA 002B COOK STRAIT
41.5S 174.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.2	2.0	24.8	44.7	20.7	6.5	.0	16.9	100.0	246
06&09	1.2	3.5	33.7	44.2	14.0	3.5	.0	14.9	100.0	86
12&15	4.9	6.4	28.8	42.3	17.3	.6	.0	13.8	100.0	156
18&21	3.2	1.1	31.9	39.4	20.2	4.3	.0	15.7	100.0	94
TOT	14	19	165	251	109	24	0	15.6		582
PCT	2.4	3.3	28.4	43.1	18.7	4.1	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	11.2	9.1	10.8	4.9		4.1
NE	5.0	1.2	3.6	.4		3.2
E	.4	.6	.6	.0		3.8
SE	1.8	1.0	4.2	3.9		5.6
S	4.9	3.9	8.4	8.9		5.4
SW	1.3	.0	2.0	1.6		5.4
W	.6	.0	.7	.0		3.4
NW	3.9	2.2	2.7	.1		3.1
VAR	.0	.0	.0	.0		.0
CALM	.4	.4	1.5	.0		5.0
TOT OBS	81	48	95	51	275	4.5
TOT PCT	29.5	17.5	34.5	18.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.7	.0	.0	1.4	3.5	.3	.4	.0	.0	.7	28.5	
NE	.4	.0	.0	.2	.2	.1	.4	.0	.0	.0	9.0	
E	.0	.0	.0	.3	.0	.4	.0	.0	.0	.0	1.0	
SE	.4	.8	.5	.9	1.8	.0	.4	.0	.0	.0	6.2	
S	.4	.6	.6	1.6	5.2	3.6	.0	.0	.0	.0	12.5	
SW	.4	.0	.7	.0	.6	.7	.0	.0	.0	.0	2.5	
W	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	1.0	
NW	.0	.0	.0	.4	.4	.0	.0	.0	.0	.0	8.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	
TOT OBS	6	4	5	13	33	14	3	0	0	2	195	275
TOT PCT	2.2	1.5	1.8	4.7	12.0	5.1	1.1	.0	.0	.7	70.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	.7	.7	.7	.7	.7	.7	.7	.7
= OR >3000	.7	.7	.7	.7	.7	.7	.7	.7
= OR >3500	1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7
= OR >2000	6.1	6.8	6.8	6.8	6.8	6.8	6.8	6.8
= OR >1000	11.5	17.6	18.2	18.2	18.2	18.2	18.2	18.2
= OR >400	13.9	22.3	23.3	23.3	23.3	23.3	23.3	23.3
= OR >300	14.2	23.6	25.0	25.0	25.0	25.0	25.0	25.0
= OR >150	15.2	25.0	26.4	26.4	26.4	26.4	26.4	26.4
= OR > 0	15.5	26.0	28.0	28.0	28.0	28.0	28.0	28.4
TOTAL	46	77	83	83	83	83	83	84

TOTAL NUMBER OF OBS: 296

PCT FREQ NH <5/8: 71.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.4	20.7	11.7	20.7	6.8	4.5	4.5	6.8	12.9	1.0	309

JANUARY

PERIOD: (PRIMARY) 1965-1978
(OVER-ALL) 1869-1978

AREA 0028 COOK STRAIT
41.5S 174.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.0	.6	.0	.2	.0	.2	.0	.0	.0	.0	.9	
	TOT %	.0	.6	.0	.2	.0	.2	.0	.0	.0	.0	.9	
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	NO PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	NO PCP	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	PCP	.6	.0	.0	.0	.2	.0	.0	.0	.0	.0	.7	
2<5	NO PCP	1.1	.3	.0	.2	.5	*	.0	.2	.0	.2	2.6	
	TOT %	1.7	.3	.0	.2	.7	*	.0	.2	.0	.2	3.4	
	PCP	.7	.0	.0	*	1.9	.3	.0	.2	.0	.0	3.2	
5<10	NO PCP	4.8	1.8	.2	2.9	3.8	.6	.5	2.0	.0	.0	16.5	
	TOT %	5.5	1.8	.2	3.0	5.7	.9	.5	2.2	.0	.0	19.7	
	PCP	.2	.0	.0	.0	.4	.2	.0	.0	.0	.2	.9	
10+	NO PCP	20.4	7.3	1.4	8.1	16.6	3.2	1.5	8.1	.0	2.1	74.5	
	TOT %	20.5	7.3	1.4	8.1	17.0	3.4	1.5	8.1	.0	2.2	75.5	
	TOT OBS												534
	TOT PCT	34.0	10.2	1.5	11.5	23.3	4.5	2.0	10.9	.0	2.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.0	.6	.0	.2	.0	.0	.0	.0	.0		.7	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.6	.0	.2	.0	.2	.0	.0	.0	.0	.9	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.1	.1	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
2<5	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	1.2	.2	.0	.2	.6	.1	.0	.4	.0		2.8	
	22+	.7	.1	.0	.0	.1	*	.0	.0	.0		.9	
	TOT %	1.9	.3	.0	.2	.7	.1	.0	.4	.0	.2	3.9	
	0-3	.2	.0	.0	.4	.0	.0	.0	.2	.0	.0	.7	
5<10	4-10	1.1	.8	.2	1.0	1.4	.5	.0	.4	.0		5.4	
	11-21	2.2	.7	.0	.8	1.7	.3	.4	.8	.0		6.9	
	22+	2.0	.3	.0	.8	2.5	.1	.1	.8	.0		6.5	
	TOT %	5.4	1.8	.2	3.0	5.6	.9	.5	2.2	.0	.0	19.5	
	0-3	.7	*	.3	.2	.6	.2	.0	.0	.0	2.2	4.3	
10+	4-10	6.6	2.5	.1	3.1	5.5	1.5	.4	2.0	.0		21.7	
	11-21	12.4	3.7	.7	4.2	6.5	1.3	.8	3.6	.0		33.3	
	22+	6.8	1.0	.1	.5	4.3	.3	.2	2.5	.0		15.8	
	TOT %	26.5	7.2	1.3	8.0	16.9	3.4	1.5	8.0	.0	2.2	75.1	
	TOT OBS												538
	TOT PCT	34.1	10.1	1.5	11.4	23.2	4.6	2.0	10.6	.0	2.4	100.0	

JANUARY

PERIOD: (PRIMARY) 1965-1978
(OVER-ALL) 1869-1978

AREA 0028 COOK STRAIT
41.5S 174.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	3.9	.0	.8	3.9	8.5	3.1	2.3	.0	.0	.0	22.5	77.5	129
06&09	.0	2.0	4.0	6.0	12.0	2.0	.0	.0	.0	.0	26.0	74.0	50
12&15	2.1	.0	.0	6.4	14.9	8.5	.0	.0	.0	4.3	36.2	63.8	47
18&21	.0	4.0	2.7	5.3	13.3	8.0	.0	.0	.0	.0	33.3	66.7	75
TOT	6	4	5	15	34	15	3	0	0	2	84	217	301
PCT	2.0	1.3	1.7	5.0	11.3	5.0	1.0	.0	.0	.7	27.9	72.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.8	.4	.8	3.2	16.0	78.8	250
06&09	1.2	.0	.0	3.6	14.3	81.0	84
12&15	1.4	.0	.0	3.4	20.9	74.3	148
18&21	.0	.0	.0	5.4	31.2	63.4	93
TOT	5	1	2	21	112	434	575
PCT	.9	.2	.3	3.7	19.5	75.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <30YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	4.0	4.8	11.1	12.7	76.2	126
06&09	.0	6.1	14.3	14.3	71.4	49
12&15	2.2	2.2	8.7	28.3	63.0	46
18&21	.0	6.7	13.3	21.3	65.3	75
TOT	6	15	35	52	209	296
PCT	2.0	5.1	11.8	17.6	70.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.3	.0	.0	.0	1	.3
70/74	.0	.0	.3	.3	1.6	.6	.9	.3	13	4.1
65/69	.0	.0	.0	1.9	2.8	3.8	4.1	2.2	45	14.2
60/64	.0	.0	.0	.0	1.9	6.6	13.6	24.4	147	46.5
55/59	.0	.0	.0	.0	1.9	6.6	12.3	13.0	107	33.9
50/54	.0	.0	.0	.0	.0	.3	.0	.6	3	.9
TOTAL	0	0	1	3	27	57	98	128	316	100.0
PCT	.0	.0	.3	1.6	8.5	18.0	31.0	40.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
3.2	.2	.0	.0	.3	.0	.0	.5	.0	.0
7.6	1.9	.2	1.3	.3	.0	.6	2.3	.0	.0
19.5	4.9	.6	3.7	7.0	3.5	.6	6.6	.0	.0
3.4	2.4	.6	6.9	14.9	2.2	.4	1.2	.0	1.9
.0	.0	.0	.3	.6	.1	.0	.0	.0	.0
34.0	9.3	1.5	12.2	23.1	5.8	1.6	10.6	.0	1.9

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	79	73	72	64	57	54	46	64.3	255
06&09	73	72	70	61	57	50	50	62.6	89
12&15	70	68	66	60	55	54	50	60.0	166
18&21	73	70	66	61	55	48	48	60.6	97
TOT	79	73	70	62	55	54	46	62.3	605

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.1	12.1	22.2	38.4	21.2	80	99
06&09	.0	.0	5.7	17.0	22.6	54.7	87	53
12&15	.0	.0	3.7	12.8	33.0	50.5	88	109
18&21	.0	.0	11.1	23.6	25.0	40.3	85	72
TOT	0	6	27	82	104	134	85	333

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PERIOD: (PRIMARY) 1965-1978
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.4	.0	.4	2	.0	.8
11/13	.0	.0	.0	.0	.8	.4	.0	.0	3	.0	1.2
9/10	.0	.0	.0	.4	.8	.0	.8	.0	5	.0	2.0
7/8	.0	.0	.0	1.2	2.0	.8	.0	.0	10	.4	3.7
6	.0	.0	.0	1.2	.4	.4	.0	.0	5	.0	2.0
5	.0	.0	.0	2.4	2.8	.8	.0	.0	13	.4	5.7
4	.0	.0	1.2	5.3	4.1	.0	.0	.0	26	.4	10.2
3	.0	.0	.4	6.1	.4	.0	.0	.0	17	.4	6.5
2	.0	.0	4.1	6.9	2.0	.0	.0	.0	32	.8	12.2
1	.0	.0	4.9	6.5	1.6	.0	.0	.0	32	.0	13.0
0	.0	1.2	5.3	6.5	.4	.4	.0	.0	34	.4	13.4
-1	.0	1.2	5.7	4.5	.0	.0	.0	.0	28	.0	11.4
-2	.0	2.0	1.6	1.2	.0	.0	.0	.0	12	.0	4.9
-3	.0	1.2	2.8	2.4	.0	.0	.0	.0	16	1.2	5.3
-4	.4	.4	.0	.0	.0	.0	.0	.0	2	.0	.8
-5	.0	.4	.4	.4	.0	.0	.0	.0	3	.0	1.2
-6	.0	.0	.8	.0	.0	.0	.0	.0	2	.0	.8
-7/-8	.0	.8	.0	.0	.0	.0	.0	.0	2	.0	.8
TOTAL	1	18	67	111	38	8	2	1	246	10	236
PCT	.4	7.3	27.2	45.1	15.4	3.3	.8	.4	100.0	4.1	95.9

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.8	.3	.0	.0	.0	1.7
1-2	.0	6.3	5.9	.0	.0	.0	12.1
3-4	.0	.0	5.8	2.1	.0	.0	7.9
5-6	.0	.0	3.0	2.0	1.1	.0	6.1
7	.0	.3	.6	2.2	.8	.0	3.9
8-9	.0	.0	.6	1.6	.3	.0	2.5
10-11	.0	.0	.0	.0	.6	.0	.6
12	.0	.0	.6	.3	.0	.0	.9
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	7.1	16.7	8.5	2.8	.0	35.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.1	2.2	2.3	.0	.0	.0	4.6
3-4	.0	.9	3.1	.5	.0	.0	4.5
5-6	.0	.0	.5	.2	.1	.0	.8
7	.0	.0	.3	.1	.1	.0	.4
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.4	6.3	1.0	.1	.0	10.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3
1-2	.2	.2	.3	.0	.0	.0	.7
3-4	.0	.0	.3	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	.2	.6	.0	.0	.0	1.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	1.5	1.6	.0	.0	.0	3.1
3-4	.0	1.5	2.9	.5	.0	.0	4.8
5-6	.0	.0	.9	.7	.0	.0	1.5
7	.0	.0	.2	.1	.1	.0	.4
8-9	.0	.0	.6	.3	.0	.0	.9
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.6	6.1	1.6	.1	.0	11.4

PERIOD: (OVER-ALL) 1963-197A

JANUARY

AREA 0028 COOK STRAIT 41.5S 174.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.9	.0	.0	.0	.0	1.2
1-2	.6	5.3	2.7	.0	.0	.0	8.6
3-4	.0	.2	1.8	1.2	.0	.0	3.2
5-6	.0	.0	2.3	1.7	.3	.0	4.3
7	.0	.0	.9	3.3	.9	.0	5.0
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.2	.0	.3	.0	.5
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	6.4	7.9	6.8	1.7	.0	23.7

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.3	1.4	.1	.0	.0	.0	1.8
3-4	.0	.4	.4	.0	.0	.0	.7
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.1	.1	.0	.0	.1
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.3	.1	.0	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.3	1.2	.1	.0	.0	3.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	.2	.3	.0	.0	.0	.5
3-4	.0	.0	.6	.0	.0	.0	.6
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.2	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.5	1.2	.2	.0	.0	1.9

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.6	.0	.0	.0	.0	.6	
1-2	.0	1.2	1.5	.0	.0	.0	2.7	
3-4	.0	.6	1.0	.9	.0	.0	2.5	
5-6	.0	.0	1.2	.7	.3	.0	2.2	
7	.0	.0	.0	.7	.0	.0	.7	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.3	.0	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.4	3.7	2.6	.3	.0	9.0	98.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.2	3.2	.3	.0	.0	.0	8.6	
1-2	1.1	18.3	14.3	.0	.0	.0	33.8	
3-4	.0	3.4	15.5	5.2	.0	.0	24.1	
5-6	.0	.0	8.3	5.2	1.7	.0	15.2	
7	.0	.3	2.0	6.6	1.7	.0	10.6	
8-9	.0	.3	1.1	2.3	.3	.0	4.0	
10-11	.0	.0	.3	.3	.6	.0	1.1	
12	.0	.0	.6	.3	.0	.0	.9	
13-16	.0	.0	.0	.6	.3	.0	.9	
17-19	.0	.3	.3	.0	.3	.0	.9	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.3	25.8	42.7	20.3	4.9	.0	100.0	349

PERIOD: (OVER-ALL) 1955-197A

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	11.2	15.0	8.3	8.8	4.3	1.1	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	185	3
6-7	.0	1.1	4.0	5.1	5.6	2.9	3.2	1.1	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	90	7
8-9	.0	.3	.8	1.3	1.6	.5	.8	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	7
10-11	.0	2.9	1.9	.5	.3	.3	.3	.0	.5	.5	.0	.0	.0	.0	.0	.0	.3	.0	.0	28	7
12-13	.0	.0	3.2	.5	.0	.5	.3	.0	.8	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	21	6
>13	.0	.0	.0	.8	.0	.3	.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	11
INDET	2.7	.0	1.1	1.1	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	2
TOTAL	11	98	97	66	62	34	21	6	11	6	1	0	0	0	0	0	1	0	0	374	5
PCT	2.9	18.5	25.9	17.6	16.6	9.1	5.6	1.6	2.9	1.6	.3	.0	.0	.0	.0	.0	.3	.0	.0	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1871-1978

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	2.5	1.9	.5	.0	.0	.0	.0	4.8	1.1	.0	2.5	.0	8.4		.0	83.3
NE	.0	.0	.5	.0	.0	.0	.0	.5	.0	.0	4.2	.0	9.4		.0	85.9
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.6	8.3	.0	.0		.0	86.1
SE	2.0	1.4	.3	.0	.0	.0	.0	3.7	4.9	.0	1.4	.0	1.4		.0	88.8
S	4.3	.7	2.3	.0	.0	.0	.0	7.3	5.5	.0	5.2	.0	1.3		.0	80.6
SW	13.0	.0	2.2	.0	.0	.0	.0	15.2	5.4	.0	3.3	.0	4.3		.0	71.7
W	.0	.0	15.8	.0	.0	.0	.0	15.8	.0	.0	.0	.0	.0		.0	84.2
NW	1.4	.0	2.9	.0	.0	.0	.0	4.3	.4	.0	.0	.0	4.3		.0	91.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	5.3	.0	.0	.0	.0	.0	.0	5.3	.0	.0	.0	.0	10.5		.0	84.2
TOT PCT	3.0	.9	1.4	.0	.0	.0	.0	5.3	2.6	.2	3.0	.0	4.8		.0	84.1
TOT OBS:	567															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	2.1	.7	1.4	.0	.0	.0	.0	4.1	2.7	.0	2.4	.0	5.2		.0	85.6
06609	4.5	2.2	.0	.0	.0	.0	.0	6.7	2.2	.0	2.2	.0	5.6		.0	83.1
12615	3.2	.8	.8	.0	.0	.0	.0	4.8	3.2	.8	3.2	.0	3.2		.0	84.7
18621	3.2	1.1	3.2	.0	.0	.0	.0	7.5	1.1	.0	5.4	.0	5.4		.0	80.6
TOT PCT	2.8	1.0	1.3	.0	.0	.0	.0	5.2	2.5	.2	3.0	.0	4.9		.0	84.3
TOT OBS:	597															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.0	6.3	11.2	9.0	2.5	.0		29.0	19.8	31.5	30.7	42.7	32.0	22.6	26.4	22.9	25.0
NE	.3	3.0	2.7	1.8	.0	.0		7.8	14.6	8.7	9.2	3.1	5.1	7.0	1.4	7.6	13.2
E	.5	1.4	1.2	.1	.0	.0		3.2	9.9	.6	5.3	3.1	1.8	5.5	7.1	2.8	1.8
SE	1.0	3.7	9.1	2.2	.4	.0		12.3	14.8	12.0	10.9	.0	12.5	12.7	5.0	31.3	13.6
S	.8	7.6	9.7	4.9	2.5	.6		26.1	18.0	30.5	27.1	33.3	21.0	20.0	36.4	18.8	22.8
SW	.2	1.7	1.2	.4	.6	.2		4.2	18.4	3.2	3.4	.0	3.7	7.9	1.4	5.6	5.7
W	.2	.3	.6	.0	.0	.0		1.0	10.3	.7	1.5	.0	.0	2.9	.0	.0	.0
NW	.0	4.3	5.5	2.8	.3	.0		13.0	16.0	10.5	11.8	13.5	19.5	16.6	10.7	8.3	12.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.3							3.3	.0	2.3	.0	4.2	4.4	4.8	11.4	2.8	5.3
TOT OBS	39	178	233	133	40	5	628		16.7	173	131	24	68	104	35	36	57
TOT PCT	6.2	28.3	37.1	21.2	6.4	.8		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.7	7.9	11.7	6.4	.3		29.0	19.8	31.2	34.8	23.6	24.2
NE	1.9	2.5	3.1	.4	.0		7.8	14.6	8.9	4.6	5.6	11.0
E	1.0	2.0	.3	.0	.0		3.2	9.9	2.6	2.2	5.9	2.2
SE	2.1	5.2	4.1	.8	.0		12.3	14.8	11.5	9.2	10.8	20.4
S	3.1	10.7	8.0	3.5	.8		26.1	18.0	29.0	24.2	24.1	21.2
SW	.5	1.9	.9	.5	.4		4.2	18.4	3.3	2.7	6.3	5.6
W	.3	.5	.2	.0	.0		1.0	10.3	1.1	.0	2.2	.0
NW	.6	6.8	4.7	.9	.0		13.0	16.0	11.1	17.9	15.1	11.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.3						3.3	.0	1.3	4.3	6.5	4.3
TOT OBS	98	235	207	78	10	628		16.7	304	92	139	93
TOT PCT	15.6	37.4	33.0	12.4	1.6		100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1871-1978

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.3	2.3	27.3	42.4	18.8	6.6	1.3	17.3	100.0	304
06&09	4.3	4.3	39.1	22.8	22.8	6.5	.0	15.6	100.0	92
12&15	0.5	4.3	23.7	39.6	21.6	9.6	.7	15.2	100.0	139
18&21	4.3	1.1	28.0	30.1	26.9	9.7	.0	17.9	100.0	93
TOT	21	18	178	233	133	40	5	16.7		628
PCT	3.3	2.9	28.3	37.1	21.2	6.4	.8		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	14.6	4.0	8.2	2.0		3.2
NE	3.5	1.6	5.6	.8		4.1
E	2.1	.4	.3	.9		3.0
SE	3.3	1.5	5.1	3.0		5.0
S	4.1	6.0	8.4	9.6		5.5
SW	1.6	.6	1.4	1.2		4.5
W	.0	.0	.2	.0		5.0
NW	3.2	.9	3.2	.4		3.8
VAR	.0	.0	.0	.0		.0
CALM	1.7	.0	.4	.4		2.8
TOT OBS	80	35	77	42	234	4.3
TOT PCT	34.2	15.0	32.9	17.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.4	.4	.3	.7	1.3	.9	.0	.0	.0	.0	24.8	
NE	.0	.0	.5	.0	1.3	.0	.0	.9	.0	.0	8.5	
E	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	3.2	
SE	.0	.0	.0	1.0	3.5	.4	.4	.0	.0	.0	7.6	
S	.0	.4	.7	3.2	4.2	3.6	.4	.0	.0	.0	15.5	
SW	.0	.0	1.0	.1	.0	.6	.0	.0	.0	.0	3.1	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
NW	.0	.0		1.4	.0	.0	.4	.0	.0	.0	5.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0	1.7	
TOT OBS	1	2	6	15	25	14	3	3	0	0	165	234
TOT PCT	.4	.9	2.6	6.4	10.7	6.0	1.3	1.3	.0	.0	70.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
* OR >9000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
* OR >9500	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
* OR >2000	4.9	7.3	8.2	8.2	8.2	8.2	8.2	8.2
* OR >1000	13.5	18.0	18.8	18.8	18.8	18.8	18.8	18.8
* OR >600	15.9	23.3	24.9	24.9	24.9	24.9	24.9	24.9
* OR >300	16.3	24.9	26.9	26.9	27.3	27.3	27.3	27.3
* OR >150	16.7	25.7	27.8	27.8	28.2	28.2	28.2	28.2
* OR > 0	16.7	25.7	27.8	27.8	28.2	28.2	28.6	28.6
TOTAL	41	63	68	68	69	69	70	70

TOTAL NUMBER OF OBS: 245 PCT FREQ NH <5/8: 71.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.8	25.5	12.5	14.5	6.8	3.5	5.1	6.7	13.7 .4	235

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PERIOD: (PRIMARY) 1929-1976
(OVER-ALL) 1871-1976

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	NO PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.4	
1/2<1	PCP	.2	.0	.0	.1	.4	.0	.0	.0	.0	.0	.7	
	NO PCP	.0	.0	.0	.2	.6	.3	.0	.0	.0	.0	1.1	
	TOT %	.2	.0	.0	.3	1.1	.3	.0	.0	.0	.0	1.8	
1<2	PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.1	*	.0	.2	.0	.0	.4	
	TOT %	.2	.0	.0	.0	.1	*	.0	.2	.0	.0	.5	
2<5	PCP	.3	*	.0	.2	.2	*	.1	.2	.0	.0	1.1	
	NO PCP	.5	.1	.1	.1	1.2	.3	.0	.0	.0	.0	2.3	
	TOT %	.8	.2	.1	.3	1.4	.3	.1	.2	.0	.0	3.4	
5<10	PCP	.7	.0	.0	.2	1.0	.2	.0	.2	.0	.2	2.5	
	NO PCP	6.8	2.0	.8	3.4	8.6	.8	.1	3.8	.0	1.2	27.5	
	TOT %	7.5	2.0	.8	3.6	9.6	1.1	.1	4.0	.0	1.4	30.0	
10+	PCP	.0	.0	.0	.0	.4	.2	.0	.2	.0	.0	.7	
	NO PCP	19.6	6.3	2.3	8.9	13.9	2.0	.6	7.8	.0	1.9	63.3	
	TOT %	19.6	6.3	2.3	8.9	14.2	2.2	.6	8.0	.0	1.9	64.0	
	TOT OBS												567
	TOT PCT	28.4	8.5	3.2	13.0	26.4	4.1	.8	12.3	.0	3.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0		.2	
	22+	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.4	.1	.0	.0	.0		.7	
	11-21	.2	.0	.0	.0	.2	.0	.0	.0	.0		.4	
	22+	.0	.0	.0	.1	.4	.2	.0	.0	.0		.7	
	TOT %	.2	.0	.0	.3	1.1	.3	.0	.0	.0	.0	1.8	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.1	*	.0	.2	.0		.4	
	TOT %	.2	.0	.0	.0	.1	*	.0	.2	.0	.0	.5	
2<5	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.1	.1	.0	.4	*	.1	.0	.0		.7	
	11-21	.3	*	.0	.0	.3	.1	.0	.0	.0		.7	
	22+	.5	*	.0	.1	.8	.2	.0	.2	.0		1.8	
	TOT %	.8	.2	.1	.3	1.4	.3	.1	.2	.0	.0	3.3	
5<10	0-3	.0	.2	.4	.2	.5	.0	.0	.0	.0	1.4	2.6	
	4-10	1.1	.7	.1	.8	2.9	.4	.0	1.2	.0		7.2	
	11-21	2.0	.6	.4	2.2	2.9	.3	.1	1.9	.0		10.4	
	22+	4.4	.5	.0	.4	3.2	.4	.0	.8	.0		9.7	
	TOT %	7.5	2.0	.8	3.6	9.6	1.1	.1	4.0	.0	1.4	29.9	
10+	0-3	.0	.2	.2	.7	.2	.2	.2	.0	.0	1.9	3.5	
	4-10	5.3	2.3	1.1	2.8	4.0	1.1	.2	2.4	.0		19.2	
	11-21	8.5	2.3	.8	3.3	6.0	.6	.3	3.3	.0		25.2	
	22+	6.0	1.5	.1	2.0	4.0	.3	.0	2.2	.0		16.2	
	TOT %	19.8	6.3	2.3	8.8	14.2	2.2	.6	8.0	.0	1.9	64.1	
	TOT OBS												568
	TOT PCT	28.6	8.5	3.2	12.9	26.4	4.0	.8	12.3	.0	3.3	100.0	

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PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1871-1978

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	1.7	5.1	3.4	6.8	5.9	1.7	.8	.0	.0	25.4	74.6	118
06&09	2.9	.0	.0	14.3	11.4	2.9	.0	.0	.0	.0	31.4	68.6	35
12&15	.0	.0	.0	3.0	15.2	6.1	3.0	3.0	.0	.0	30.3	69.7	33
18&21	.0	.0	.0	7.8	14.1	6.3	.0	1.6	.0	.0	29.7	70.3	64
TOT	1	2	6	15	26	14	3	3	0	0	70	180	250
PCT	.4	.8	2.4	6.0	10.4	5.6	1.2	1.2	.0	.0	28.0	72.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	1.4	.0	2.7	27.1	68.7	291
06&09	2.2	1.1	.0	6.7	31.1	58.9	90
12&15	.0	1.6	1.6	2.4	29.8	64.5	124
18&21	.0	4.3	2.2	3.2	35.5	54.8	93
TOT	2	11	4	20	177	384	598
PCT	.3	1.8	.7	3.3	29.6	64.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	6.8	13.6	13.6	72.9	118
06&09	2.9	2.9	20.0	14.3	65.7	35
12&15	.0	.0	3.4	31.0	65.5	29
18&21	.0	.0	7.9	22.2	69.8	63
TOT	1	9	29	44	172	245
PCT	.4	3.7	11.8	18.0	70.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.3	.3	.0	.0	.0	2	.7
70/74	.0	.0	.0	.0	1.4	.0	.7	.3	7	2.4
65/69	.0	.0	.0	.0	.7	5.2	9.0	3.5	53	18.3
60/64	.0	.0	.7	.7	2.8	10.0	12.1	21.5	138	47.8
55/59	.0	.0	.0	.3	2.1	6.9	6.6	10.4	76	26.3
50/54	.0	.0	.0	.0	.7	.7	2.1	1.0	13	4.5
TOTAL	0	0	2	4	23	66	88	106	289	100.0
PCT	.0	.0	.7	1.4	8.0	22.8	30.4	36.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.6	.1	.0	.0	.0	.0	.0	.0	.0	.0
1.3	.3	.0	.0	.0	.0	.0	.8	.0	.0
9.9	1.3	.0	.0	1.0	.7	.0	5.4	.0	.0
17.5	3.5	2.2	4.1	9.3	1.5	1.2	7.4	.0	1.0
2.1	1.1	2.0	5.3	11.0	2.5	.3	1.4	.0	.7
.0	.0	.0	.1	3.1	1.0	.0	.3	.0	.0
31.4	6.4	4.2	9.4	24.4	5.6	1.5	15.3	.0	1.7

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	77	75	73	64	57	52	52	64.5	316
06&09	72	71	69	63	55	52	52	62.7	96
12&15	68	67	66	61	54	50	50	60.7	136
18&21	70	69	68	62	54	54	54	61.7	95
TOT	77	75	71	63	55	52	50	63.0	643

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.6	9.1	32.7	33.6	20.9	81	110
06&09	.0	2.3	4.5	18.2	31.8	43.2	86	44
12&15	.0	1.1	10.1	14.6	30.3	43.8	85	89
18&21	.0	.0	5.1	18.6	25.4	50.8	87	59
TOT	0	6	24	68	93	111	84	302

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PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1871-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.0	.0	.7	2	.0	.7
9/10	.0	.0	.0	.4	2.6	1.1	.0	11	.0	4.1
7/8	.0	.0	.0	.4	1.9	.7	.4	9	.0	3.4
6	.0	.0	.0	.7	.4	1.1	.0	6	.0	2.2
5	.0	.0	.4	2.6	3.4	1.1	.4	21	.0	7.9
4	.0	.0	.4	3.4	2.2	.7	.0	18	.4	6.4
3	.0	.0	.4	4.5	1.5	1.1	.0	20	.4	7.1
2	.0	.0	1.9	9.7	3.0	.4	.0	40	.0	15.0
1	.0	.0	1.5	4.9	3.0	.0	.0	25	.7	8.6
0	.0	1.1	4.5	7.1	1.9	.4	.0	40	.7	14.2
-1	.0	.0	3.0	5.6	.7	.0	.0	25	.7	8.6
-2	.0	.7	3.4	3.0	.4	.0	.0	20	.4	7.1
-3	.0	.0	2.2	1.1	.0	.0	.0	9	.0	3.4
-4	.0	.0	1.9	1.1	.0	.0	.0	8	.0	3.0
-5	.0	1.5	.7	.0	.0	.0	.0	6	.0	2.2
-6	.0	.4	.4	.0	.0	.0	.0	2	.0	.7
-7/-8	.0	.4	.4	.0	.0	.0	.0	2	.0	.7
-9/-10	.4	.0	.4	.0	.0	.0	.0	2	.0	.7
-11/-13	.0	.4	.0	.0	.0	.0	.0	1	.0	.4
TOTAL	1	12	57	119	56	18	4	267	9	258
PCT	.4	4.5	21.3	44.6	21.0	6.7	1.5	100.0	3.4	96.6

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.7	.0	.0	.0	.0	2.7
1-2	.0	2.0	4.4	.0	.0	.0	6.4
3-4	.0	1.8	5.1	4.0	.0	.0	10.9
5-6	.0	.8	3.1	1.9	.9	.0	6.7
7	.0	.0	.8	1.1	1.2	.0	3.1
8-9	.0	.0	.0	.3	.3	.0	.6
10-11	.0	.0	.0	.8	.0	.0	.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.2	13.5	8.0	2.4	.0	31.2

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.6
1-2	.0	2.3	1.1	.0	.0	.0	3.4
3-4	.0	.6	2.7	1.7	.0	.0	5.0
5-6	.0	.2	.2	.7	.0	.0	1.1
7	.0	.0	.0	.2	.0	.0	.2
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.4	4.0	3.0	.0	.0	10.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.3	.5	.9	.0	.0	.0	1.8
3-4	.0	.6	.6	.0	.0	.0	1.2
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.1	1.5	.0	.0	.0	3.0

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.2	.3	.0	.0	.0	.0	1.5
1-2	.0	3.2	1.6	.0	.0	.0	4.8
3-4	.0	.1	2.1	.3	.0	.0	2.5
5-6	.0	.1	.7	1.1	.0	.0	1.8
7	.0	.0	.6	.8	.0	.0	1.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.1	.1	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	3.7	5.0	2.2	.1	.0	12.2

PERIOD: (OVER-ALL) 1963-1978

FEBRUARY

TABLE 18 (CONT)

AREA 0028 COOK STRAIT 41.4S 174.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.6	.0	.0	.0	.0	.9
1-2	.0	4.8	1.4	.0	.0	.0	6.3
3-4	.0	.5	4.3	.5	.0	.0	5.3
5-6	.0	.5	.2	2.6	.6	.0	4.0
7	.0	.0	.6	2.2	1.8	.3	5.0
8-9	.0	.0	.2	.6	.3	.6	1.8
10-11	.0	.0	.0	1.1	.8	.0	1.9
12	.0	.0	.3	.0	.0	.0	.3
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.3	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	6.5	7.2	6.9	3.8	1.2	25.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	1.8	.0	.0	.0	.0	1.8
3-4	.0	.0	.2	.2	.0	.0	.4
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.1	.3	.0	.4
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.3	.3	.6
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.4	.6	.3	.7	.3	4.3

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.3	.0	.0	.0	.3

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.7	.0	.0	.0	.0	.7	
1-2	.0	1.0	3.0	.0	.0	.0	4.0	
3-4	.0	.3	.7	1.4	.0	.0	2.4	
5-6	.0	.0	.6	.8	.0	.0	1.4	
7	.0	.0	.4	.9	.0	.0	1.3	
8-9	.0	.0	.0	.3	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.0	4.7	3.4	.0	.0	10.1	97.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.3	5.2	.0	.0	.0	.0	9.5	
1-2	.3	15.5	12.5	.0	.0	.0	28.4	
3-4	.0	4.0	15.9	7.9	.0	.0	27.7	
5-6	.0	1.5	5.2	7.0	1.5	.0	15.2	
7	.0	.0	2.7	5.2	3.4	.3	11.6	
8-9	.0	.0	.3	1.5	.6	.6	3.0	
10-11	.0	.0	.0	2.1	.9	.0	3.0	
12	.0	.0	.3	.0	.0	.0	.3	
13-16	.0	.0	.0	.0	.3	.0	.3	
17-19	.0	.0	.0	.0	.3	.6	.9	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								328
TOT PCT	4.6	26.2	36.9	23.8	7.0	1.5	100.0	

PERIOD: (OVER-ALL) 1951-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.5	12.4	15.5	9.3	7.1	2.8	1.4	.8	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	186	4
6-7	.0	.6	3.1	4.8	4.5	4.8	.6	.0	.8	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	75	7
8-9	.0	.0	1.4	2.0	1.4	.6	.8	.3	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	7
10-11	.0	1.1	1.4	.8	.8	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	5
12-13	.0	.0	3.1	2.0	.3	.3	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	22	6
>13	.0	.0	.0	1.1	.3	.3	.6	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	9	10
INDET	2.0	.3	.8	1.7	.8	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	4
TOTAL	16	51	90	77	94	35	14	4	6	3	0	1	0	1	0	0	0	0	0	354	5
PCT	4.5	14.4	25.4	21.8	15.3	9.9	4.0	1.1	2.3	.8	.0	.3	.0	.3	.0	.0	.0	.0	.0	100.0	

MARCH

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1877-1977

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	2.3	.8	4.0	.0	.0	.0	.0	6.6	2.4	.0	.8	.0	3.2	.0		86.7
NE	3.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0	.0	.0	5.4	.0		91.6
E	.0	.0	2.9	.0	.0	.0	.0	2.9	.0	.0	.0	.0	.0	.0		97.1
SE	6.8	2.6	6.4	.0	.0	.0	.0	14.5	3.5	.0	.3	.0	.3	.0		81.4
S	5.4	1.4	2.3	.0	.0	.0	.0	9.1	9.6	.0	2.0	.0	2.3	.0		78.0
SW	5.2	6.2	1.0	.0	.0	.0	.0	14.4	13.4	.0	4.1	.0	7.2	.0		60.8
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.3	.0		92.7
NW	.8	.8	1.2	.0	.0	.0	.0	2.7	.4	.0	.8	.0	1.6	.0		94.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	5.6	.0	.0	.0	.0	5.6	5.6	.0	5.6	.0	5.6	.0		77.8
TOT PCT	3.5	1.4	3.1	.0	.0	.0	.0	7.7	4.2	.0	1.2	.0	2.8	.0		84.1
TOT OBS:	574															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	3.6	.4	2.2	.0	.0	.0	.0	5.4	5.8	.0	1.1	.0	4.7	.0		83.1
06609	3.3	1.1	4.4	.0	.0	.0	.0	8.9	3.3	.0	.0	.0	1.1	.0		86.7
12615	3.3	2.0	2.6	.0	.0	.0	.0	7.9	3.3	.0	2.0	.0	.7	.0		86.1
18621	3.3	3.3	6.6	.0	.0	.0	.0	13.2	1.1	.0	2.2	.0	1.1	.0		82.4
TOT PCT	3.4	1.3	3.3	.0	.0	.0	.0	7.7	4.1	.0	1.3	.0	2.6	.0		84.3
TOT OBS:	610															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	8.0	14.8	6.8	.9	.0		31.1	16.7	34.2	34.9	42.5	22.0	29.4	25.5	39.0	22.3
NE	.2	2.3	3.0	.9	.2	.0		6.5	14.5	5.9	10.9	10.8	6.4	5.7	4.3	1.5	1.9
E	.0	1.4	1.3	.2	.0	.0		2.8	11.7	.5	2.4	5.0	4.2	5.7	2.1	2.9	1.5
SE	.0	6.7	4.7	1.9	*	*		13.4	13.4	11.9	12.9	11.7	16.3	11.5	13.8	9.6	20.8
S	1.0	9.5	8.1	5.0	1.6	.1		25.3	16.1	27.6	26.2	25.8	30.3	20.2	18.1	28.7	25.0
SW	.8	1.4	1.2	.4	.4	.0		4.2	13.3	4.9	2.0	4.2	1.9	2.7	8.5	9.8	6.5
W	.9	.6	.5	.0	.0	.0		2.0	6.1	2.5	.0	.0	.0	1.3	6.4	2.9	6.2
NW	.1	2.1	5.7	3.2	.3	.0		11.5	18.0	11.2	9.4	.0	12.9	17.6	14.9	6.5	9.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.3							3.3	.0	1.3	1.4	.0	6.1	5.9	6.4	.0	6.2
TOT OBS	46	211	259	121	22	1	660		15.1	152	147	30	66	119	47	34	65
TOT PCT	7.0	32.0	39.2	18.3	3.3	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.3	14.1	11.0	3.5	.2		31.1	16.7	34.5	28.4	28.3	28.0
NE	.6	3.9	1.4	.6	.0		6.5	14.5	8.4	7.8	5.3	1.8
E	.6	1.6	.5	.0	.0		2.8	11.7	1.4	4.4	4.7	2.0
SE	3.5	5.5	3.2	1.1	*		13.4	13.4	12.4	14.8	12.2	16.9
S	4.4	10.5	6.3	3.6	.5		25.3	16.1	26.9	28.9	19.6	26.3
SW	1.5	1.7	.4	.4	.2		4.2	13.3	3.5	2.6	4.4	7.3
W	1.2	.8	.0	.0	.0		2.0	6.1	1.3	.0	2.7	5.1
NW	1.1	3.9	4.7	1.7	.0		11.5	18.0	10.3	8.9	16.9	9.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.3						3.3	.0	1.3	4.2	6.0	4.0
TOT OBS	123	278	182	71	6	660		15.1	299	96	166	99
TOT PCT	18.6	42.1	27.6	10.8	.9		100.0		100.0	100.0	100.0	100.0

MARCH

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1877-1977

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.3	3.0	33.1	40.8	17.7	3.7	.3	15.4	100.0	299
06&09	4.2	3.1	28.1	41.7	19.8	3.1	.0	15.3	100.0	96
12&15	6.0	5.4	28.9	36.7	19.3	3.6	.0	14.6	100.0	166
18&21	4.0	3.0	37.4	36.4	17.2	2.0	.0	14.4	100.0	99
TOT	22	24	211	259	121	22	1	15.1		660
PCT	3.3	3.6	32.0	39.2	18.3	3.3	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	10.4	7.3	9.8	4.4		4.2
NE	2.9	.8	1.6	1.1		4.0
E	1.4	.7	.2	1.1		4.0
SE	2.2	3.0	2.9	5.7		5.6
S	6.2	3.9	8.3	7.0		5.1
SW	2.2	.6	1.7	2.5		4.8
W	1.0	.4	.4	.0		2.9
NW	2.4	1.6	3.8	.7		4.1
VAR	.0	.0	.0	.0		.0
CALM	1.6	.0	.0	.4		2.6
TOT OBS	78	47	74	59	258	4.6
TOT PCT	30.2	18.2	28.7	22.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.3	.4	4.7	1.2	.3	.0	.0	.0	25.1	
NE	.0	.0	.1	.0	.3	.0	.1	.0	.4	.0	5.4	
E	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	2.6	
SE	.0	.0	.4	1.1	2.9	.3	.9	.0	.0	.0	8.3	
S	.7	.4	.4	1.3	5.2	.8	2.2	.0	.0	.0	14.4	
SW	.9	.0	.0	.8	.5	.5	.0	.0	.0	.0	4.5	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	1.4	
NW	.0	.0	.0	.4	.5	.0	.0	.0	.0	.0	7.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	1.6	
TOT OBS	4	1	3	10	39	7	9	0	1	1	183	258
TOT PCT	1.6	.4	1.2	3.9	15.1	2.7	3.5	.0	.4	.4	70.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.4	.7	.7	.7	.7	.7	.7	.7
* OR >5000	.4	.7	.7	.7	.7	.7	.7	.7
* OR >3500	2.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0
* OR >2000	4.4	6.9	6.9	6.9	6.9	6.9	6.9	6.9
* OR >1000	15.7	21.2	21.5	21.5	21.5	21.5	21.5	21.5
* OR >600	17.2	25.2	25.9	25.9	25.9	25.9	25.9	25.9
* OR >300	17.2	25.2	27.0	27.0	27.0	27.0	27.0	27.0
* OR >150	17.5	25.5	27.4	27.4	27.4	27.4	27.4	27.4
* OR > 0	17.9	25.9	28.1	28.5	28.8	28.8	29.2	29.2
TOTAL	49	71	77	78	79	79	80	80

TOTAL NUMBER OF OBS: 274 PCT FREQ NH <5/8: 70.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
9.1	23.1	13.6	20.3	3.1	2.8	5.2	7.0	14.7	1.0	286

MARCH

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1877-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
1/2<1	PCP	.7	.0	.0	.0	.0	.0	.0	.0	.0	.2	.9	
	NO PCP	.1	.0	.0	.3	.6	.2	.0	.1	.0	.0	1.2	
	TOT %	.8	.0	.0	.3	.6	.2	.0	.1	.0	.2	2.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
2<5	PCP	.5	.0	.0	.3	.6	*	.0	*	.0	.0	1.4	
	NO PCP	.4	*	.1	.4	.3	.0	.0	.1	.0	.2	1.6	
	TOT %	.9	*	.1	.7	.9	*	.0	.1	.0	.2	3.0	
5<10	PCP	.7	*	.1	.8	1.5	.6	.0	.3	.0	.0	4.0	
	NO PCP	5.9	1.2	.4	3.8	7.2	.7	.7	2.3	.0	.7	23.0	
	TOT %	6.6	1.3	.5	4.7	8.7	1.3	.7	2.4	.0	.7	27.0	
10+	PCP	.2	.2	.0	.7	.2	.0	.0	.0	.0	.0	1.2	
	NO PCP	23.1	5.8	2.4	7.1	13.9	2.5	1.1	9.4	.0	2.1	66.4	
	TOT %	23.3	6.0	2.4	7.8	14.1	2.5	1.1	8.4	.0	2.1	67.6	
	TOT OBS												574
	TOT PCT	31.9	7.3	3.0	13.5	24.3	4.2	1.8	11.1	.0	3.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.2	.0	.0	.0	.0	.2	.0	.0	.0	.2	.5	
	4-10	.4	.0	.0	.2	.2	.0	.0	.1	.0		.9	
	11-21	.2	.0	.0	.1	.3	.0	.0	.0	.0		.5	
	22+	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	TOT %	.8	.0	.0	.3	.6	.2	.0	.1	.0	.2	2.1	
1<2	0-3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.3	.0	.0	.2	.3	*	.0	*	.0		.9	
	11-21	.3	*	.1	.3	.1	.0	.0	*	.0		.9	
	22+	.3	.0	.0	.3	.6	.0	.0	*	.0		1.2	
	TOT %	.9	*	.1	.7	1.0	*	.0	.1	.0	.2	3.1	
5<10	0-3	.1	.0	.0	.0	.2	.2	.5	.1	.0	.7	1.7	
	4-10	1.0	.2	.3	2.8	3.4	.6	.2	.3	.0		8.8	
	11-21	2.5	.6	.2	1.0	1.9	.2	.0	1.2	.0		7.6	
	22+	3.0	.4	.0	.9	3.1	.3	.0	.9	.0		8.7	
	TOT %	6.6	1.3	.5	4.6	8.6	1.3	.7	2.6	.0	.7	26.8	
10+	0-3	.2	.2	.0	.0	.8	.4	.0	.0	.0	2.1	3.6	
	4-10	6.0	2.4	1.2	3.0	4.5	.7	.5	1.5	.0		19.7	
	11-21	12.7	2.8	1.0	3.7	5.8	1.1	.6	4.4	.0		32.0	
	22+	4.5	.6	.2	1.0	3.1	.4	.0	2.5	.0		12.3	
	TOT %	23.4	5.9	2.4	7.7	14.1	2.6	1.1	8.4	.0	2.1	67.6	
	TOT OBS												578
	TOT PCT	31.6	7.2	3.0	13.5	24.3	4.3	1.8	11.2	.0	3.1	100.0	

MARCH

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1877-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.9	.0	1.7	1.7	13.8	2.6	2.6	.0	.9	.0	24.1	75.9	116
06&09	.0	.0	2.3	11.4	6.8	4.5	2.3	.0	.0	.0	27.3	72.7	44
12&15	3.9	.0	.0	3.9	27.5	.0	2.0	.0	.0	.0	37.3	62.7	51
18&21	3.0	1.5	.0	4.5	10.4	4.5	6.0	.0	.0	1.5	31.3	68.7	67
TOT	5	1	3	12	40	8	9	0	1	1	80	198	278
PCT	1.8	.4	1.1	4.3	14.4	2.9	3.2	.0	.4	.4	28.8	71.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.4	1.4	.4	4.3	24.3	69.3	280
06&09	.0	2.2	.0	3.3	34.8	59.8	92
12&15	.7	2.6	.0	.7	21.9	74.2	151
18&21	.0	3.3	.0	2.2	36.3	58.2	91
TOT	2	13	1	18	166	414	614
PCT	.3	2.1	.2	2.9	27.0	67.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.9	2.6	7.0	19.1	73.9	115
06&09	.0	2.3	13.6	13.6	72.7	44
12&15	4.2	4.2	8.3	31.3	60.4	48
18&21	3.0	4.5	9.0	22.4	68.7	67
TOT	5	9	24	58	192	274
PCT	1.8	3.3	8.8	21.2	70.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.6	.6	.3	.0	.0	5	1.5
65/69	.0	.0	.0	.0	1.2	2.4	5.1	6.0	49	14.8
60/64	.0	.0	.3	.9	3.3	8.4	12.0	21.4	152	45.8
55/59	.0	.0	.0	.0	3.0	8.7	10.8	10.8	111	33.4
50/54	.0	.0	.0	.0	.9	.6	1.5	1.5	15	4.5
TOTAL	0	0	1	3	30	68	98	132	332	100.0
PCT	.0	.0	.3	.9	9.0	20.5	29.5	39.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
1.4	.2	.0	.0	.0	.0	.0	.0	.0	.0
9.0	1.2	.2	.8	.6	.4	.5	2.1	.0	.0
17.2	2.9	1.1	3.4	8.5	2.3	.2	8.8	.0	1.2
3.9	.7	1.1	5.9	16.3	2.0	1.2	.8	.0	1.5
.4	.1	.2	.3	1.1	1.0	1.2	.2	.0	.0
31.9	5.0	2.6	10.4	26.5	5.6	3.2	12.0	.0	2.7

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	75	73	72	63	54	52	52	63.6	303
06&09	70	69	66	61	55	50	50	60.8	100
12&15	67	66	66	60	55	53	53	59.9	170
18&21	70	68	66	59	53	50	50	59.3	98
TOT	75	72	70	61	55	52	50	61.6	671

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	2.1	13.8	20.2	34.0	29.8	83	94
06&09	.0	1.7	11.9	28.8	20.3	37.3	83	59
12&15	.0	.8	3.1	18.8	29.7	47.7	87	128
18&21	.0	.0	11.7	18.2	29.9	40.3	85	77
TOT	0	4	33	74	105	142	85	358

MARCH

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1877-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.0	.4	1	.0	.4
9/10	.0	.0	.0	.0	.4	.8	3	.0	1.3
7/8	.0	.0	.0	1.3	.4	.0	4	.0	1.7
6	.0	.0	.0	.0	1.3	.4	4	.0	1.7
5	.0	.0	.4	2.1	4.2	.4	17	.0	7.1
4	.0	.0	.0	2.9	1.7	.8	13	.0	5.4
3	.0	.0	.8	5.9	1.7	.0	20	.0	8.4
2	.0	.0	5.0	6.3	1.3	.0	30	.4	12.1
1	.0	.8	1.7	7.1	.4	.0	24	.0	10.0
0	.0	.4	6.7	6.3	.8	.0	34	.4	13.8
-1	.0	1.3	5.0	5.0	.4	.0	28	.4	11.3
-2	.0	2.1	4.6	2.9	.0	.0	23	.4	9.2
-3	.0	1.7	4.2	.0	.0	.0	14	.4	5.4
-4	.0	1.3	.4	.4	.0	.0	5	.0	2.1
-5	.8	1.7	.8	.4	.4	.0	10	.0	4.2
-6	.0	.4	.0	.4	.0	.0	2	.0	.8
-7/-8	.0	1.7	.4	.0	.0	.0	5	.0	2.1
-11/-13	.0	.4	.0	.0	.0	.0	1	.0	.4
-14/-16	.0	.0	.4	.0	.0	.0	1	.0	.4
TOTAL	2	28	73	98	31	7	239	5	234
PCT	.8	11.7	30.5	41.0	13.0	2.9	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	5.2	5.5	.0	.0	.0	10.7
3-4	.0	1.8	8.3	1.2	.0	.0	11.3
5-6	.0	.3	4.6	3.3	.0	.0	8.2
7	.0	.0	.5	1.4	.9	.0	2.8
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.3	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.4	19.5	6.4	.9	.0	34.1

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.3	2.0	1.0	.0	.0	.0	3.3
3-4	.0	.8	1.9	.3	.0	.0	3.0
5-6	.0	.0	1.0	.4	.0	.0	1.4
7	.0	.0	.1	.7	.0	.0	.7
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.4	4.3	1.3	.0	.0	9.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	.6	.5	.0	.0	.0	1.1
3-4	.0	.0	.4	.0	.0	.0	.4
5-6	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.9	1.2	.0	.0	.0	2.0

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	2.6	.7	.0	.0	.0	3.3
3-4	.0	.4	2.5	.3	.0	.0	3.1
5-6	.0	.3	2.3	.1	.0	.0	2.7
7	.0	.3	1.0	.7	.1	.0	2.1
8-9	.0	.0	.1	.1	.0	.0	.2
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.1	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	6.6	1.4	.1	.1	11.9

PERIOD: (OVER-ALL) 1963-1977

MARCH

TABLE 18 (CONT)

AREA 0028 COOK STRAIT 41.4S 174.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.9	.0	.0	.0	.0	1.7
1-2	.0	2.5	1.0	.0	.0	.0	3.5
3-4	.0	2.4	4.5	.3	.0	.0	7.2
5-6	.3	.0	2.7	1.6	.0	.0	4.6
7	.0	.0	1.0	1.5	1.1	.0	3.6
8-9	.0	.0	.2	.4	.2	.0	.9
10-11	.0	.0	.0	.7	.9	.0	1.6
12	.0	.0	.0	.3	.2	.2	.7
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	5.8	9.5	5.1	2.4	.2	24.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.4	.0	.0	.0	.0	.4
1-2	.6	.5	.3	.0	.0	.0	1.4
3-4	.0	.1	.4	.3	.0	.0	.9
5-6	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.0	.1	.3	.0	.4
8-9	.0	.0	.0	.0	.1	.0	.1
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.1	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	1.0	1.4	.5	.4	.0	4.0

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	.3	.5	.0	.0	.0	.8
3-4	.0	.3	.3	.0	.0	.0	.6
5-6	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	1.0	.0	.0	.0	1.8

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	1.8	1.8	.0	.0	.0	3.6	
3-4	.0	.0	2.3	.3	.0	.0	2.6	
5-6	.0	.0	.6	1.0	.0	.0	1.6	
7	.0	.0	.3	.9	.0	.0	1.2	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.3	.0	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.8	5.3	2.2	.0	.0	9.3	96.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.6	2.6	.0	.0	.0	.0	7.2	
1-2	1.2	15.6	11.2	.0	.0	.0	28.0	
3-4	.0	5.8	20.5	2.6	.0	.0	28.8	
5-6	.6	.6	12.1	6.3	.0	.0	19.6	
7	.0	.3	2.9	5.2	2.3	.0	10.7	
8-9	.0	.0	.9	.6	.3	.0	1.7	
10-11	.0	.0	.3	.9	.9	.0	2.0	
12	.0	.0	.0	.3	.3	.3	.9	
13-16	.0	.0	.0	.6	.0	.0	.6	
17-19	.0	.0	.0	.3	.0	.0	.3	
20-22	.0	.0	.3	.0	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.3	24.8	48.1	16.7	3.7	.3	100.0	347

PERIOD: (OVER-ALL) 1957-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	12.8	18.2	12.0	7.1	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	193	4
6-7	.0	1.6	1.1	3.0	4.6	1.9	1.6	.0	.5	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	56	7
8-9	.0	.5	1.9	2.2	1.6	.5	.3	.0	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	7
10-11	.0	1.6	.5	1.4	1.1	.5	.3	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	6
12-13	.0	.0	3.5	1.1	.5	.3	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	5
>13	.0	.0	.0	1.1	.8	.0	.3	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	9
UNDET	4.1	.3	.8	1.1	.8	.5	.3	.3	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	32	4
TOTAL	17	62	96	80	61	16	13	3	15	3	1	1	0	0	0	0	0	0	0	388	5
PCT	4.6	16.8	26.1	21.7	16.6	4.3	3.5	.8	4.1	.8	.3	.3	.0	.0	.0	.0	.0	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1868-1977

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	6.1	1.0	1.5	.0	.0	.0	.0	7.9	2.0	.0	1.8	.0	.0	.0		88.3
NE	.8	3.1	.8	.0	.0	.0	.0	4.6	3.1	.0	3.1	.0	.0	.0		89.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0	.0	.0		91.7
SE	7.2	3.4	.0	.0	.0	.0	.0	12.6	.4	.0	2.7	.0	3.6	.0		80.7
S	5.3	2.1	2.3	.0	.0	.0	.0	9.6	6.4	.0	.0	.0	.8	.0		83.2
SW	.0	1.1	.0	.0	.0	.0	.0	1.1	1.1	.0	.0	.0	2.2	.0		95.7
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.5	.0		85.5
NW	3.2	.0	.5	.0	.0	.0	.0	3.2	7.3	1.8	.5	.0	.0	.0		97.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	11.1	.0	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	.0	.0		88.9
TOT PCT	4.7	1.9	1.2	.0	.0	.0	.0	7.4	3.7	.2	1.2	.0	1.4	.0		86.0
TOT OBS:	430															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.0	1.4	.9	.0	.0	.0	.0	7.3	2.7	.0	.5	.0	1.4	.0		88.1
06&09	5.6	3.7	.0	.0	.0	.0	.0	9.3	.0	.0	3.7	.0	7.4	.0		79.6
12&15	1.8	.9	2.7	.0	.0	.0	.0	4.5	3.6	.9	2.7	.0	.0	.0		88.4
18&21	4.8	2.4	1.2	.0	.0	.0	.0	8.3	7.1	.0	.0	.0	2.4	.0		82.1
TOT PCT	4.3	1.7	1.3	.0	.0	.0	.0	7.0	3.4	.2	1.3	.0	1.9	.0		86.1
TOT OBS:	469															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.0	6.5	11.7	3.9	.9	.2		23.2	16.2	30.7	27.1	17.7	37.9	16.2	15.3	17.1	11.7
NE	.0	3.6	3.3	.4	.1	.0		7.4	12.5	8.0	9.8	2.1	4.8	3.6	16.7	3.7	12.8
E	.2	1.3	.0	.3	.0	.0		1.7	9.5	1.3	.0	4.2	8.9	1.6	.0	.0	2.2
SE	.6	4.1	5.3	2.5	.9	.0		13.3	16.1	11.7	16.0	16.7	17.7	7.7	11.1	22.6	11.1
S	.5	8.0	12.6	4.4	4.0	.7		30.2	19.2	30.2	30.6	36.5	21.8	33.2	27.8	28.7	27.8
SW	.4	1.8	1.8	.5	.5	.0		5.1	16.0	4.6	2.4	6.3	.0	9.3	.0	2.4	10.6
W	.2	2.0	.8	1.1	.0	.0		4.2	13.6	2.2	3.2	7.3	.0	5.8	5.6	7.3	6.1
NW	.2	3.7	4.6	3.4	1.0	.1		13.0	17.8	10.4	6.6	9.4	8.9	19.2	23.6	15.9	17.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.0							2.0	.0	.9	4.3	.0	.0	3.3	.0	2.4	.5
TOT OBS	19	142	184	74	34	4	459		16.5	115	94	24	31	91	18	41	45
TOT PCT	4.1	30.9	40.1	16.6	7.4	.9		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.0	11.9	7.7	1.4	.3		23.2	16.2	29.1	29.1	16.1	14.2
NE	1.0	5.0	1.3	.1	.0		7.4	12.5	8.9	3.6	5.7	8.4
E	.8	.6	.3	.0	.0		1.7	9.5	.7	6.8	1.4	1.2
SE	2.0	5.6	4.4	1.0	.4		13.3	16.1	13.6	17.3	8.3	16.6
S	3.1	12.1	9.1	4.2	1.7		30.2	19.2	30.4	28.2	32.3	28.2
SW	1.1	1.9	1.1	.7	.2		5.1	16.0	3.6	2.7	7.8	6.7
W	1.5	1.4	.8	.5	.0		4.2	13.6	2.6	3.2	5.7	6.7
NW	1.6	5.2	4.4	1.5	.3		13.0	17.8	8.7	9.1	20.0	16.9
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.0						2.0	.0	2.4	.0	2.8	1.2
TOT OBS	69	200	133	43	14	459		16.5	209	95	109	86
TOT PCT	15.0	43.6	29.0	9.4	3.1		100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1868-1977

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.4	1.9	28.7	43.1	16.7	6.2	1.0	16.5	100.0	209
06&09	.0	1.8	34.5	41.8	18.2	3.6	.0	15.8	100.0	55
12&15	2.8	2.8	33.9	34.9	13.8	11.0	.9	16.2	100.0	109
18&21	1.2	2.3	30.2	38.4	18.6	8.1	1.2	17.3	100.0	86
TOT	9	10	142	184	76	34	4	16.5		459
PCT	2.0	2.2	30.9	40.1	16.6	7.4	.9		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	8.3	4.9	5.5	5.0		4.3
NE	2.4	2.2	3.1	1.5		4.8
E	.9	.5	.3	.0		2.4
SE	1.4	.6	5.8	2.4		5.6
S	6.0	4.5	9.0	12.2		5.5
SW	2.3	1.5	3.0	.6		4.2
W	.9	1.7	.9	.0		3.3
NW	4.2	1.7	4.4	.5		3.8
VAR	.0	.0	.0	.0		.0
CALM	.5	.0	.9	.0		3.6
TOT OBS	58	38	71	48	215	4.7
TOT PCT	27.0	17.7	33.0	22.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY WGT	TOTAL OBS
N	.9	.0	.0	.7	1.2	2.6	.5	.0	.0	.0	18.4	
NE	.5	.0	.0	.2	1.4	.1	.5	.0	.0	.0	6.8	
E	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	1.4	
SE	.0	.0	.0	1.2	3.5	2.0	.2	.0	.0	.0	3.5	
S	.0	.0	1.4	4.4	6.7	4.0	2.1	.0	.0	.0	13.1	
SW	.0	.0	.0	.6	1.4	.6	.0	.0	.0	.0	4.9	
W	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	3.1	
NW	.1	.0	.0	.5	1.6	1.0	.0	.0	.0	.0	7.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.9	
TOT OBS	2	0	3	18	34	22	7	1	0	0	128	215
TOT PCT	.9	.0	1.4	8.4	15.8	10.2	3.3	.5	.0	.0	59.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >90YD	= OR >0
= OR >6500	.4	.4	.4	.4	.4	.4	.4	.4
= OR >4000	.8	.8	.8	.8	.8	.8	.8	.8
= OR >3500	3.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2
= OR >2000	11.3	13.8	13.8	13.8	13.8	13.8	14.2	14.2
= OR >1000	22.2	28.5	28.9	28.9	28.9	28.9	29.3	29.3
= OR >600	26.8	34.7	35.6	36.4	36.4	36.4	36.8	36.8
= OR >300	26.8	35.1	36.8	37.7	37.7	37.7	38.1	38.1
= OR >150	26.8	35.6	37.2	38.1	38.1	38.1	38.5	38.5
= OR > 0	26.8	36.0	38.1	38.9	38.9	38.9	39.3	39.3
TOTAL	64	86	91	93	93	93	94	94

TOTAL NUMBER OF OBS: 239

PCT FREQ NH <5/8: 60.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.1	22.6	8.2	13.2	5.8	7.4	6.6	9.7	15.6 .8	257

APRIL

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1868-1977

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41.4S 174.9E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.1	.3	.0	.0	.0	.0	.0	.0	.5	
	TOT %	.0	.0	.1	.3	.0	.0	.0	.0	.0	.0	.5	
1<2	PCP	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5	
	NO PCP	.2	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	TOT %	.2	.0	.0	.0	.5	.0	.0	.1	.0	.0	.7	
2<5	PCP	.3	.0	.0	.5	.7	.0	.0	.3	.0	.0	1.9	
	NO PCP	.0	.0	.0	.7	.2	.1	.2	.0	.0	.0	1.2	
	TOT %	.3	.0	.0	1.2	.9	.1	.2	.3	.0	.0	3.0	
5<10	PCP	1.2	.1	.0	.5	1.1	.1	.0	.1	.0	.0	3.0	
	NO PCP	3.1	.9	.0	2.0	5.3	.5	.8	2.0	.0	.5	15.1	
	TOT %	4.4	1.0	.0	2.5	6.5	.6	.8	2.0	.0	.5	18.1	
10+	PCP	.2	.2	.0	.7	.7	.0	.0	.0	.0	.2	2.1	
	NO PCP	17.7	6.4	1.3	8.3	22.3	4.8	3.1	10.3	.0	1.4	75.6	
	TOT %	18.0	6.6	1.3	9.0	23.0	4.8	3.1	10.3	.0	1.6	77.7	
	TOT OBS												430
	TOT PCT	22.8	7.6	1.4	13.0	30.9	5.4	4.0	12.8	.0	2.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.1	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.1	.3	.0	.0	.0	.0	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.2	.0	.0	.0	.2	.0	.0	.1	.0		.5	
	22+	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	TOT %	.2	.0	.0	.0	.5	.0	.0	.1	.0	.0	.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	22+	.6	.0	.0	.7	.9	.1	.2	.3	.0		2.8	
	TOT %	.6	.0	.0	1.1	.9	.1	.2	.3	.0	.0	3.2	
5<10	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	
	4-10	1.1	.5	.0	.3	1.6	.0	.2	.3	.0		3.9	
	11-21	2.0	.5	.0	1.1	1.8	.1	.2	.6	.0		6.2	
	22+	1.2	.1	.0	1.0	3.3	.5	.3	1.1	.0		7.6	
	TOT %	4.3	1.0	.0	2.5	6.6	.6	.7	2.0	.0	.5	18.2	
10+	0-3	.0	.0	.2	.4	.6	.5	.2	.2	.0	1.6	3.7	
	4-10	5.7	3.2	1.0	3.2	6.8	1.9	1.7	3.4	.0		26.9	
	11-21	9.1	3.0	.0	3.4	10.2	1.8	.6	3.7	.0		32.0	
	22+	3.3	.4	.1	1.8	5.2	.5	.5	3.2	.0		14.9	
	TOT %	18.1	6.6	1.3	8.9	22.8	4.7	3.0	10.6	.0	1.6	77.5	
	TOT OBS												435
	TOT PCT	23.2	7.5	1.4	12.8	30.7	5.3	4.0	13.0	.0	2.1	100.0	

APRIL

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1868-1977

AREA 0028 COOK STRAIT
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	2.1	5.3	6.3	4.2	4.2	.0	1.1	.0	23.2	76.8	95
06&09	.0	.0	.0	8.8	11.8	5.9	5.9	.0	.0	.0	32.4	67.6	34
12&15	4.3	2.2	.0	8.7	13.0	13.0	13.0	.0	.0	.0	41.3	58.7	46
18&21	.0	.0	1.4	8.2	27.4	16.4	2.7	1.4	.0	.0	57.5	42.5	73
TOT	2	1	3	18	36	24	8	1	1	0	94	154	248
PCT	.8	.4	1.2	7.3	14.5	9.7	3.2	.4	.4	.0	37.9	62.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.5	.9	3.2	17.3	78.2	220
06&09	.0	1.8	.0	1.8	12.7	83.6	55
12&15	.9	.0	.9	1.8	16.8	79.6	113
18&21	.0	.0	.0	4.7	20.9	74.4	86
TOT	1	2	3	14	82	372	474
PCT	.2	.4	.6	3.0	17.3	78.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	2.1	7.4	15.8	76.8	95
06&09	.0	.0	9.7	25.8	64.5	31
12&15	5.0	10.0	20.0	27.5	52.5	40
18&21	.0	1.4	11.0	46.6	42.5	73
TOT	2	7	26	68	145	239
PCT	.8	2.9	10.9	28.5	60.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.0	.0	.5	.0	1	.5
65/69	.0	.0	.0	.0	2.3	1.4	.9	.9	12	5.5
60/64	.0	.0	.0	.0	1.4	10.1	6.9	9.2	60	27.5
55/59	.0	.0	.5	.9	4.1	10.6	16.5	14.7	103	47.2
50/54	.0	.0	.0	.0	9.2	4.1	6.0	4.6	39	17.9
45/49	.0	.0	.0	.0	.0	.0	1.4	.0	3	1.4
TOTAL	0	0	1	2	24	57	70	64	218	100.0
PCT	.0	.0	.5	.9	11.0	26.1	32.1	29.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
3.1	1.1	.0	.0	.5	.0	.0	.8	.0	.0
11.5	2.1	.5	3.6	2.9	.0	1.5	5.2	.0	.5
7.0	1.5	1.4	6.0	17.0	5.2	.8	7.1	.0	1.4
.5	.9	.3	2.2	10.4	2.8	.8	.0	.0	.0
.0	.0	.0	.0	.5	.0	.5	.5	.0	.0
22.0	6.1	2.2	11.7	31.2	7.9	3.6	13.5	.0	1.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	72	68	59	52	48	48	59.9	224
06&09	67	66	65	60	52	51	51	59.7	98
12&15	64	63	63	57	51	50	48	56.7	121
18&21	68	64	63	57	50	46	46	56.9	87
TOT	73	68	66	59	51	48	46	58.5	490

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.1	21.9	35.9	23.4	15.6	77	64
06&09	.0	5.9	14.7	23.5	38.2	17.6	80	34
12&15	.0	1.1	5.5	26.4	30.8	36.3	85	91
18&21	.0	1.9	7.4	18.5	37.0	35.2	85	54
TOT	0	6	28	65	76	68	82	243

APRIL

PERIOD: (PRIMARY) 1967-1977
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
9/10	.0	.0	.0	.0	.0	1.2	2	.0	1.2
7/8	.0	.0	.0	.0	.6	.0	1	.0	.6
6	.0	.0	.0	.0	.0	.6	1	.0	.6
5	.0	.0	.0	1.2	3.0	.0	7	.0	4.2
4	.0	.0	.0	1.8	4.2	.6	12	.0	7.1
3	.0	.0	.0	1.8	2.4	1.8	10	.0	6.0
2	.0	.0	.6	4.2	4.2	1.8	18	.0	10.7
1	.0	.0	.6	4.8	6.5	1.2	22	.0	13.1
0	.0	.0	6.5	5.4	2.4	.0	24	1.2	13.1
-1	.0	.0	2.4	2.4	1.2	.6	11	1.2	5.4
-2	.0	.0	1.8	3.6	1.2	.0	11	.0	6.5
-3	.0	2.4	4.2	.0	1.2	.0	13	.0	7.7
-4	.0	1.2	2.4	.6	.6	.0	8	.0	4.8
-5	.0	3.0	1.8	1.2	.6	.0	11	.0	6.5
-6	.0	.0	.0	.6	.0	.0	1	.0	.6
-7/-8	.0	2.4	.0	.6	.6	.0	6	.0	3.6
-9/-10	.6	1.2	.0	.0	.6	.0	4	.0	2.4
-11/-13	.6	.6	.0	1.2	.0	.0	4	.0	2.4
-14/-16	.0	.0	.6	.0	.0	.0	1	.0	.6
-17/-19	.0	.0	.6	.0	.0	.0	1	.0	.6
TOTAL	2	18	37	49	49	13	168	4	164
PCT	1.2	10.7	22.0	29.2	29.2	7.7	100.0	2.4	97.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	5.5	4.0	.0	.0	.0	9.5
3-4	.0	.4	5.3	2.4	.0	.0	8.1
5-6	.0	.0	2.3	2.2	.0	.0	4.5
7	.0	.0	.5	.6	.0	.0	1.2
8-9	.0	.4	.0	.3	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.2	12.1	5.5	.0	.0	23.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7
1-2	.0	2.3	1.5	.0	.0	.0	3.8
3-4	.0	1.1	1.6	.2	.0	.0	2.8
5-6	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.1	3.4	.3	.0	.0	7.7

F

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.4	.0	.0	.0	.0	.6
1-2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	.4	.0	.0	.0	.0	.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.8	.0	.0	.0	.0	.9
1-2	.2	1.5	.8	.0	.0	.0	2.5
3-4	.0	1.1	2.2	.2	.0	.0	3.5
5-6	.0	.0	1.2	.9	.0	.0	2.1
7	.0	.0	.4	1.2	.4	.0	2.0
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.1	.0	.1
13-16	.0	.0	.0	.0	.4	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.4	4.7	2.6	.8	.0	11.7

PERIOD: (OVER-ALL) 1963-1977 APRIL AREA 002R COOK STRAIT 41.4S 174.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.5	6.5	2.7	.0	.0	.0	9.8
3-4	.0	2.0	4.5	.9	.0	.0	7.4
5-6	.0	.0	3.2	1.2	.7	.0	5.1
7	.0	.0	2.0	2.3	.4	.0	4.6
8-9	.0	.0	.4	.4	1.1	.0	1.8
10-11	.0	.0	.4	.4	.0	.0	.7
12	.0	.0	.4	.0	.3	.0	.6
13-16	.0	.0	.0	.0	.4	.7	1.1
17-19	.0	.0	.0	.4	.4	.0	.7
20-22	.0	.0	.0	.0	.4	.0	.4
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	9.0	13.5	5.5	3.5	.7	32.7

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.7	1.6	.7	.0	.0	.0	3.0
3-4	.0	.9	1.2	.4	.0	.0	2.4
5-6	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.1	.1	.4	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.8	2.1	.4	.4	.0	6.5

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	1.1	.4	.0	.0	.0	1.4
3-4	.0	.5	.6	.4	.0	.0	1.5
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.4	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.0	1.0	.7	.0	.0	3.6

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	3.2	.5	.0	.0	.0	3.7	
3-4	.0	.2	1.2	1.3	.0	.0	2.7	
5-6	.0	.0	.4	1.0	.0	.0	1.4	
7	.0	.0	.4	.8	.0	.0	1.2	
8-9	.0	.0	.0	.0	.4	.0	.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.7	.4	.0	1.1	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	3.4	2.6	3.8	.7	.0	10.5	97.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.8	3.5	.0	.0	.0	.0	7.3	
1-2	2.1	21.5	10.4	.0	.0	.0	34.0	
3-4	.0	5.9	16.3	5.6	.0	.0	27.8	
5-6	.0	.0	7.3	5.2	.7	.0	13.2	
7	.0	.0	3.5	5.2	1.0	.0	9.7	
8-9	.0	.3	.3	1.0	1.4	.0	3.1	
10-11	.0	.0	.3	.3	.0	.0	.7	
12	.0	.0	.3	.0	.3	.0	.7	
13-16	.0	.0	.0	.7	1.0	.7	2.4	
17-19	.0	.0	.0	.3	.3	.0	.7	
20-22	.0	.0	.0	.0	.3	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								288
TOT PCT	5.9	31.3	38.5	18.4	5.2	.7	100.0	

PERIOD: (OVER-ALL) 1964-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.7	9.6	14.9	6.6	7.9	3.6	.7	.7	1.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	141	5
6-7	.0	1.0	2.0	4.6	2.3	4.0	2.0	.7	1.3	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	38	7
8-9	.0	.3	2.3	2.6	1.7	1.7	2.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	36	7
10-11	.0	2.0	.7	1.0	1.7	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	5
12-13	.0	.0	1.3	1.7	.7	.0	.3	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	14	7
>13	.0	.0	.0	1.7	1.0	1.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	7
INDEF	2.6	.0	.7	2.6	.3	1.0	.3	.3	.7	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	26	5
TOTAL	10	39	66	82	47	35	17	5	14	5	2	0	0	0	0	0	0	0	0	302	6
PCT	3.3	12.9	21.9	70.5	15.6	11.6	5.6	1.7	4.6	1.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

MAY

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1872-1977

AREA 0028 COOK STRAIT
41.5S 174.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	3.6	1.8	1.5	.0	.0	.0	.0	6.9	3.8	.0	.5	.0	1.3		.0	87.6
NE	.6	.6	1.2	.0	.0	.0	.0	2.4	.0	.0	.6	.0	2.4		.0	94.5
E	10.7	.0	.0	.0	.0	.0	.0	10.7	.0	.0	10.7	.0	.0		.0	78.7
SE	11.9	.6	2.8	.0	.0	.0	1.1	14.1	8.5	.0	.0	.0	.0		.0	77.4
S	4.5	1.7	1.2	.0	.0	.0	.3	7.7	6.8	.0	.7	.0	.0		.0	84.9
SW	4.0	.5	2.0	.0	.0	.0	.0	6.4	2.0	.0	.0	.0	2.0		.0	89.6
W	6.3	.0	.0	.0	.0	.0	.0	6.3	.0	11.1	.0	.0	.0		.0	82.5
NW	2.6	.0	.3	.0	.0	.0	.0	2.9	2.6	1.4	.0	.0	.0		.0	93.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	5.9	.0	.0	.0	.0		.0	94.1
TOT PCT	4.3	1.0	1.2	.0	.0	.0	.2	6.6	4.2	.5	.7	.0	.7		.0	87.3
TOT OBS:	577															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.8	.8	1.5	.0	.0	.0	.4	6.4	5.7	.0	.8	.0	.0		.4	86.7
06&09	5.9	1.0	1.0	.0	.0	.0	.0	6.9	.0	.0	1.0	.0	1.0		.0	91.1
12&15	5.9	2.0	1.3	.0	.0	.0	.0	9.2	3.3	1.3	1.3	.0	.0		.0	85.0
18&21	2.1	.0	2.1	.0	.0	.0	.0	4.3	5.3	1.1	1.1	.0	3.2		.0	85.1
TOT PCT	4.4	1.0	1.5	.0	.0	.0	.2	6.9	4.1	.5	1.0	.0	.7		.2	86.8
TOT OBS:	612															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	9.3	11.9	3.6	.6	.0		26.2	14.6	29.2	30.6	27.3	32.1	17.5	33.3	28.6	20.2
NE	.3	3.0	2.9	.8	.2	.0		7.2	13.3	10.9	5.4	11.4	1.6	5.2	6.7	10.2	4.3
E	.0	2.0	1.2	.0	.0	.0		3.2	10.0	2.7	.4	6.4	.0	6.8	.0	5.1	.0
SE	.0	2.2	3.5	1.7	.4	.0		7.7	17.1	6.7	17.3	11.8	6.5	1.8	.0	7.1	2.7
S	.2	8.3	8.1	6.1	3.4	.5		26.5	19.4	32.4	30.6	17.7	27.2	22.0	36.7	25.5	19.1
SW	.3	3.7	2.9	1.3	.3	.0		8.6	14.3	6.0	.8	7.3	10.3	15.9	10.0	5.1	18.6
W	.3	1.2	1.4	.2	.0	.0		3.1	12.2	2.0	2.4	1.4	6.0	2.3	.0	8.7	4.8
NW	.2	4.0	7.7	1.8	.7	.0		14.5	15.8	8.7	9.9	16.8	12.0	23.4	6.7	9.7	23.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.9							2.9	.0	1.4	2.4	.0	4.3	5.0	6.7	.0	6.4
TOT OBS	31	207	244	95	34	3	614		15.5	138	124	55	46	140	15	49	47
TOT PCT	5.0	33.7	39.7	15.5	5.5	.5		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.3	11.5	9.0	1.4	.0		26.2	14.6	29.9	29.5	19.0	24.5
NE	1.7	3.2	2.0	.3	.0		7.2	13.3	8.3	6.9	5.3	7.3
E	1.0	2.0	.2	.0	.0		3.2	10.0	1.6	3.5	6.1	2.6
SE	1.2	2.9	2.5	1.1	.1		7.7	17.1	11.7	9.4	1.6	4.9
S	4.4	8.4	6.6	5.8	1.4		26.5	19.4	31.6	22.0	23.4	22.4
SW	1.5	3.9	2.4	.8	.0		8.6	14.3	3.5	8.7	15.3	11.7
W	.6	1.8	.8	.0	.0		3.1	12.2	2.2	3.5	2.3	6.8
NW	1.8	6.6	4.9	1.0	.2		14.5	15.8	9.3	14.6	21.8	16.7
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.9						2.9	.0	1.9	2.0	3.2	3.1
TOT OBS	119	247	174	64	10	614		15.5	262	101	155	96
TOT PCT	19.4	40.2	28.3	10.4	1.6		100.0		100.0	100.0	100.0	100.0

MAY

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1872-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.9	1.9	37.4	37.0	14.5	6.1	1.1	15.7	100.0	262
06&09	2.0	4.0	31.7	47.5	10.9	4.0	.0	14.3	100.0	101
12&15	5.2	1.3	23.2	43.2	21.3	5.8	.0	16.6	100.0	155
18&21	3.1	2.1	42.7	33.3	13.5	5.2	.0	14.3	100.0	96
TOT	18	13	207	244	95	34	3	15.5		614
PCT	2.9	2.1	33.7	39.7	15.5	5.5	.5		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	7.9	6.7	6.8	3.5		4.3
NE	3.8	.6	2.3	1.5		3.8
E	1.2	.0	1.8	.6		4.7
SE	.8	1.7	3.5	3.3		5.8
S	5.8	5.8	10.2	3.7		4.7
SW	3.7	1.3	2.4	1.3		3.6
W	1.0	.0	.6	.3		4.0
NW	5.7	2.8	4.7	.9		3.6
VAR	.0	.0	.0	.0		.0
CALM	1.3	.3	.3	.0		1.6
TOT OBS	99	61	110	48	318	4.3
TOT PCT	31.1	19.2	34.6	15.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.0	.3	2.2	2.4	2.0	.6	.0	.0	.0	19.3	
NE	.1	.0	.3	.6	1.1	.2	.4	.3	.0	.0	5.0	
E	.0	.0	.3	.0	1.7	.3	.0	.0	.0	.0	1.2	
SE	.1	.0	.0	.8	2.6	1.1	.0	.0	.0	.0	4.7	
S	.2	.0	.9	2.4	2.8	1.7	.6	.3	.0	.3	10.4	
SW	.0	.0	.3	.3	.7	.7	.0	.0	.0	.0	6.5	
W	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	
NW	.0	.0	.3	.3	1.0	1.3	.0	.0	.0	.3	11.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	1.6	
TOT OBS	3	0	8	22	39	23	5	2	0	2	214	318
TOT PCT	.9	.0	2.5	6.9	12.3	7.2	1.6	.6	.0	.6	67.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.6	.6	.6	.6	.6	.6	.6	.6
= OR >5000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >3500	2.7	2.9	3.2	3.2	3.2	3.2	3.2	3.2
= OR >2000	8.3	9.1	10.0	10.0	10.0	10.0	10.0	10.0
= OR >1000	16.8	19.8	21.8	21.8	21.8	21.8	21.8	21.8
= OR >600	21.8	26.3	28.6	28.6	28.6	28.6	28.6	28.6
= OR >300	22.7	28.6	31.0	31.0	31.0	31.0	31.0	31.0
= OR >150	22.7	28.6	31.0	31.0	31.0	31.0	31.0	31.0
= OR > 0	23.0	29.2	31.6	31.9	31.9	31.9	31.9	31.9
TOTAL	78	99	107	108	108	108	108	108

TOTAL NUMBER OF OBS: 339 PCT FREQ NH <5/8: 68.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
9.5	19.5	15.3	15.0	6.1	5.0	9.2	5.8	14.5	.5	379

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1872-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	
2<5	PCP	.5	.0	.0	.4	.5	.2	.0	.2	.0	.0	1.7	
	NO PCP	.2	.0	.0	.2	.1	.0	.0	.2	.0	.2	.9	
	TOT %	.7	.0	.0	.6	.6	.2	.0	.3	.0	.2	2.6	
5<10	PCP	.6	*	.0	.6	1.0	*	.2	.2	.0	.0	2.8	
	NO PCP	3.2	.8	.6	.7	5.8	.9	.1	1.4	.0	1.2	14.7	
	TOT %	3.9	.9	.6	1.3	6.8	1.0	.3	1.6	.0	1.2	17.5	
10+	PCP	.7	.1	.3	*	.5	.3	.0	*	.0	.0	2.1	
	NO PCP	21.1	6.1	2.3	5.7	18.2	7.3	2.5	13.0	.0	1.6	77.6	
	TOT %	21.8	6.2	2.6	5.7	18.6	7.6	2.5	13.0	.0	1.6	79.7	
	TOT OBS												577
	TOT PCT	24.5	7.1	3.2	7.7	26.0	8.8	2.7	14.9	.0	2.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	11-21	.1	*	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	*	.0	.2	.0	.0	.0	.0	.0	.0	.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.2	.0	.0	*	.1	.2	.0	.2	.0		.7	
	11-21	.3	.0	.0	.2	.1	.0	.0	.3	.0		.9	
	22+	.3	.0	.0	.3	.3	.0	.0	.0	.0		1.0	
	TOT %	.8	.0	.0	.6	.6	.2	.0	.4	.0	.2	2.8	
5<10	0-3	.2	.0	.0	.0	.2	.0	.0	.0	.0	1.2	1.5	
	4-10	1.6	.2	.5	.4	1.2	.2	.3	.2	.0		4.5	
	11-21	.9	.1	.1	.4	1.6	.1	.0	.9	.0		4.1	
	22+	1.2	.6	.0	.6	3.8	.6	.0	.5	.0		7.2	
	TOT %	3.8	.9	.6	1.3	6.8	.9	.3	1.6	.0	1.2	17.4	
10+	0-3	.7	.3	.0	.0	.0	.3	.2	.2	.0	1.5	3.3	
	4-10	7.5	2.6	1.5	1.6	6.8	3.6	.8	3.7	.0		28.1	
	11-21	10.9	2.9	1.2	3.0	6.3	2.8	1.3	6.8	.0		35.1	
	22+	2.7	.4	.0	1.1	5.4	1.1	.2	2.2	.0		13.1	
	TOT %	21.8	6.3	2.6	5.7	18.5	7.7	2.5	12.9	.0	1.5	79.5	
	TOT OBS												981
	TOT PCT	26.5	7.2	3.2	7.8	25.9	8.9	2.7	14.9	.0	2.9	100.0	

MAY

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1872-1977

AREA 0028 COOK STRAIT
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.4	.0	.7	5.7	8.5	7.1	2.1	.0	.0	.0	25.5	74.5	141
06&09	.0	.0	3.2	4.8	14.5	4.8	3.2	1.6	.0	1.6	33.9	66.1	62
12&15	.0	.0	1.3	9.3	9.3	5.3	1.3	1.3	.0	.0	28.0	72.0	75
18&21	1.3	.0	5.1	6.4	15.4	7.7	1.3	.0	.0	1.3	38.5	61.5	78
TOT	3	0	8	23	40	23	7	2	0	2	108	248	356
PCT	.8	.0	2.2	6.5	11.2	6.5	2.0	.6	.0	.6	30.3	69.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.0	.4	3.4	21.6	74.6	264
06&09	.0	1.0	1.0	1.0	19.4	77.7	103
12&15	.0	.0	.0	3.2	11.7	85.1	154
18&21	1.1	.0	.0	2.1	11.6	85.3	95
TOT	1	1	2	17	106	489	616
PCT	.2	.2	.3	2.8	17.2	79.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.4	2.2	11.6	15.2	73.2	138
06&09	.0	3.2	8.1	25.8	66.1	62
12&15	.0	1.6	14.8	19.7	65.6	61
18&21	2.6	7.7	16.7	23.1	60.3	78
TOT	4	12	43	67	229	339
PCT	1.2	3.5	12.7	19.8	67.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.3	.6	.0	1.8	3.2	2.6	1.2	33	9.7
55/59	.0	.6	.6	1.2	6.8	10.3	11.8	10.9	143	42.1
50/54	.0	.0	.0	1.5	3.5	9.4	13.8	10.3	131	38.5
45/49	.0	.0	.3	.9	.9	1.8	3.8	.9	29	8.5
40/44	.0	.0	.0	.0	.0	.0	.3	.9	4	1.2
TOTAL	0	3	5	12	44	84	110	82	340	100.0
PCT	.0	.9	1.5	3.5	12.9	24.7	32.4	24.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
2.9	1.0	.4	.6	.3	.3	.7	3.2	.0	.3
16.7	3.2	2.1	1.2	5.7	2.3	.8	10.1	.0	.0
3.8	2.6	1.4	4.3	13.8	6.3	1.5	3.9	.0	.9
.4	.7	.0	.1	3.8	2.9	.0	.1	.0	.6
.2	.0	.0	.0	.5	.4	.0	.1	.0	.0
24.1	7.4	4.0	6.2	24.0	12.2	3.0	17.3	.0	1.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	65	64	63	55	48	46	39	55.8	271
06&09	64	63	61	55	49	40	40	55.5	105
12&15	63	61	59	54	45	43	43	53.6	158
18&21	63	62	59	54	45	41	41	53.3	100
TOT	65	64	63	55	47	43	39	54.8	634

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	9.6	23.4	33.0	23.4	10.6	75	94
06&09	.0	2.9	11.6	30.4	33.3	21.7	81	69
12&15	.0	3.3	7.5	15.0	35.8	38.3	85	120
18&21	.0	6.8	12.2	25.7	37.8	17.6	80	74
TOT	0	20	48	89	116	84	81	357

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1872-1977

TABLE 17

AREA 0028 COOK STRAIT
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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	TOT	% FOG	NO FOG
11/13	.0	.0	.0	.0	.0	.4	1	.0	.4
9/10	.0	.0	.0	.0	.0	.4	1	.0	.4
7/8	.0	.0	.0	.0	.8	.8	4	.0	1.5
6	.0	.0	.0	.0	1.5	.0	4	.0	1.5
5	.0	.0	.0	.8	3.0	2.7	17	.0	6.4
4	.0	.0	.0	.8	1.9	.8	9	.0	3.4
3	.0	.0	.0	.3	2.7	.4	10	.0	3.8
2	.0	.0	.4	3.8	5.3	.8	27	.0	10.2
1	.0	.0	.0	3.4	4.2	.4	21	.0	8.0
0	.0	.0	1.1	9.8	4.5	.4	42	.4	15.5
-1	.0	.0	.4	2.7	1.5	.0	12	.0	4.5
-2	.0	.0	1.5	4.2	1.1	.0	18	.0	6.8
-3	.0	.8	3.4	1.1	.8	.0	16	.0	6.1
-4	.0	.4	3.8	4.2	1.9	.0	27	.0	10.2
-5	.4	.8	2.3	4.5	.0	.0	21	.0	8.0
-6	.0	.8	.4	1.9	.0	.0	8	.0	3.0
-7/-8	1.1	.4	2.7	1.1	.0	.0	14	.0	5.3
-9/-10	.4	1.5	.8	.0	.0	.0	7	.8	1.9
-11/-13	.4	.8	.0	.0	.0	.0	3	.4	.8
-14/-16	.0	.4	.0	.0	.0	.0	1	.0	.4
-17/-19	.4	.0	.0	.0	.0	.0	1	.0	.4
TOTAL	7	15	44	103	77	18	264	4	260
PCT	2.7	5.7	16.7	39.0	29.2	6.8	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.4	.2	.0	.0	.0	2.1
1-2	.3	3.7	2.9	.0	.0	.0	6.8
3-4	.0	1.6	4.5	1.0	.0	.0	7.0
5-6	.0	.3	2.5	2.0	.0	.0	4.7
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	1.0	.5	.0	.0	1.6
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.9	11.4	3.7	.3	.0	23.2

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.2	.0	.0	.0	.0	1.5
1-2	.3	1.4	.1	.0	.0	.0	1.4
3-4	.0	.3	1.3	.6	.0	.0	2.3
5-6	.0	.0	.5	.1	.0	.0	.5
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.9	1.8	.7	.0	.0	5.8

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.0	.8	.0	.0	.0	.0	.8
3-4	.0	.0	.5	.0	.0	.0	.5
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.6	1.0	.0	.0	.0	2.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.3	.9	.0	.0	.0	2.2
3-4	.0	1.0	1.0	.5	.0	.0	2.5
5-6	.0	.0	1.6	.6	.1	.0	2.3
7	.0	.0	.2	.3	.0	.0	.5
8-9	.0	.0	.0	.0	.1	.0	.1
10-11	.0	.0	.0	.0	.1	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.3	.0	.0	.3
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.3	3.7	1.7	.5	.0	8.3

PERIOD: (OVER-ALL) 1963-1977 MAY AREA 0028 COOK STRAIT 41.5S 174.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.8	.0	.0	.0	.0	1.1
1-2	.0	6.2	1.3	.0	.0	.0	7.5
3-4	.0	.9	4.8	.5	.0	.0	6.2
5-6	.0	.3	2.1	2.1	.8	.0	5.3
7	.0	.0	1.4	.5	1.4	.0	3.4
8-9	.0	.0	.0	1.0	1.3	.0	2.3
10-11	.0	.0	.0	1.1	.2	.3	1.6
12	.0	.0	.0	.8	.3	.0	1.1
13-16	.0	.0	.0	.5	.3	.0	.8
17-19	.0	.0	.0	.3	.5	.0	.8
20-22	.0	.0	.0	.0	.0	.3	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	8.2	9.7	7.0	4.7	.5	30.3

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.0	2.6	1.2	.0	.0	.0	3.8
3-4	.0	1.1	.6	.0	.0	.0	1.7
5-6	.0	.0	.9	.5	.0	.0	1.4
7	.0	.0	.0	1.1	.3	.0	1.4
8-9	.0	.3	.3	.1	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.8	2.9	1.7	.5	.0	10.0

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.7	.2	.0	.0	.0	.9
3-4	.0	.4	.5	.0	.0	.0	1.0
5-6	.0	.0	.8	.3	.0	.0	1.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	1.5	.3	.0	.0	2.9

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.2	.1	.0	.0	.0	1.3	
1-2	.3	2.3	.9	.0	.0	.0	3.5	
3-4	.0	.4	3.3	.3	.0	.0	4.0	
5-6	.0	.0	2.3	1.2	.0	.0	3.6	
7	.0	.0	.7	.3	.3	.0	1.2	
8-9	.0	.0	.1	.0	.3	.0	.3	
10-11	.0	.0	.3	.0	.0	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.1	.3	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.3	.0	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	4.0	7.9	1.9	.8	.0	14.9	97.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.8	6.2	.3	.0	.0	.0	10.3	
1-2	.5	19.0	7.3	.0	.0	.0	26.8	
3-4	.3	5.7	16.3	3.0	.0	.0	25.2	
5-6	.0	.5	10.8	6.8	.8	.0	19.0	
7	.0	.0	3.0	2.2	1.9	.0	7.0	
8-9	.0	.3	1.4	1.6	1.6	.0	4.9	
10-11	.0	.0	.3	1.1	.5	.3	2.2	
12	.0	.0	.0	.8	.3	.0	1.1	
13-16	.0	.0	.0	.8	1.1	.0	1.9	
17-19	.0	.0	.0	.3	.5	.0	.8	
20-22	.0	.0	.3	.0	.0	.3	.5	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.3	.0	.0	.3	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.6	31.7	39.6	16.8	6.8	.5	100.0	369

PERIOD: (OVER-ALL) 1951-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.5	7.8	10.0	6.0	6.0	2.0	2.5	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	149	4
6-7	.0	.3	2.0	6.5	3.3	4.3	4.0	.8	1.3	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	93	8
8-9	.0	.3	1.5	2.5	3.5	3.0	2.3	.5	1.3	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	62	8
10-11	.0	2.3	1.8	.5	.8	1.0	1.0	.5	.3	.8	.0	.3	.0	.0	.0	.0	.0	.0	.0	36	7
12-13	.0	.0	2.0	.3	.5	.5	.3	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	6
>13	.0	.0	.0	.8	.8	.3	.3	.0	.0	.3	.3	.5	.3	.3	.0	.0	.0	.0	.0	14	15
INDET	2.5	.5	1.0	1.0	.8	.8	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	4
TOTAL	20	44	73	70	62	47	41	9	15	10	2	4	1	1	0	0	0	0	0	399	6
PCT	5.0	11.0	18.3	17.5	15.5	11.8	10.3	2.3	3.8	2.5	.5	1.0	.3	.3	.0	.0	.0	.0	.0	100.0	

JUNE

PERIOD: (PRIMARY) 1892-1977
(OVER-ALL) 1884-1977

AREA 0028 COOK STRAIT
41.5S 174.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	8.2	10.4	3.2	.0	.0	.0	.0	21.8	1.5	1.2	1.2	.0	.0		.0	75.6
NE	3.9	11.8	2.0	.0	.0	.0	.0	17.7	2.5	.0	.0	.0	.0		.0	79.8
E	45.2	.0	.0	.0	.0	.0	.0	45.2	12.9	.0	.0	.0	.0		.0	41.9
SE	3.1	4.2	4.7	.0	.0	.0	.0	12.0	4.7	.0	6.3	.0	.0		.0	77.1
S	10.1	12.5	2.3	.0	.0	.0	2.2	27.0	4.5	1.1	2.2	.0	.0		.0	66.3
SW	7.0	1.4	2.1	.0	.0	.0	4.2	14.7	4.9	.0	1.4	.0	.0		.0	78.9
W	.0	6.5	.0	.0	.0	.0	.0	6.5	.0	.0	.0	.0	.0		.0	93.5
NW	3.7	4.5	2.7	.0	.0	.0	.0	11.0	2.4	4.3	.0	.0	.0		.0	84.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	12.9	.0	.0	.0	.0	.0	12.9	.0	.0	.0	.0	.0		.0	87.1
TOT PCT	7.1	8.8	2.5	.0	.0	.0	1.0	19.5	3.1	1.2	1.5	.0	.0		.0	75.6
TOT OBS:	673															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	6.9	8.0	2.5	.0	.0	.0	1.1	18.2	5.1	.4	1.1	.0	.0		.0	75.6
06609	8.3	9.3	2.8	.0	.0	.0	.9	21.3	.9	.9	2.8	.0	.0		.0	75.0
12615	6.3	11.9	.6	.0	.0	.0	1.1	19.9	3.4	2.3	1.1	.0	.0		.0	74.4
18621	6.8	5.5	5.5	.0	.0	.0	.7	18.5	2.7	1.4	1.4	.0	.0		.0	77.4
TOT PCT	7.0	8.7	2.7	.0	.0	.0	1.0	19.1	3.5	1.1	1.4	.0	.0		.0	75.6
TOT OBS:	705															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.2	8.0	11.9	4.9	.0	.0		25.9	16.0	27.4	25.7	18.1	25.8	27.5	25.0	31.7	22.9
NE	.4	4.7	2.4	.1	.0	.0		7.6	10.1	8.8	6.9	8.0	8.9	4.5	11.4	5.3	8.7
E	.0	.1	.7	.3	.0	.0		1.1	18.4	1.4	.0	1.6	.0	.8	3.5	3.4	.0
SE	.4	1.3	3.6	1.2	.5	.0		6.9	17.1	5.3	9.3	17.6	5.9	1.8	6.6	8.2	7.6
S	1.1	6.2	8.2	6.4	5.3	.2		27.4	21.0	29.1	33.6	33.5	29.7	21.1	18.0	28.4	24.5
SW	*	2.8	4.9	1.4	1.1	*		10.2	17.0	15.2	3.4	6.4	6.8	15.0	5.3	6.3	14.5
W	.1	1.3	.7	.1	.0	.0		2.3	10.7	1.8	2.1	.0	3.4	1.2	1.8	6.7	2.9
NW	.7	2.9	7.9	2.0	.5	.0		14.0	16.2	10.2	13.8	14.9	11.0	21.5	16.2	8.2	14.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.5							4.5	.0	.6	5.2	.0	8.5	4.6	12.3	1.9	4.2
TOT OBS	55	200	293	120	60	2	730		16.3	164	134	47	59	122	57	52	95
TOT PCT	7.5	27.4	40.1	16.4	8.2	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.9	10.0	9.3	2.3	.4		25.9	16.0	26.7	22.4	26.7	26.0
NE	1.9	4.7	1.1	.0	.0		7.6	10.1	8.0	8.5	6.7	7.5
E	.0	.4	.5	.1	.0		1.1	18.4	.8	.7	1.7	1.2
SE	.5	3.4	1.6	1.3	.0		6.9	17.1	7.1	11.1	3.4	7.8
S	3.5	8.2	6.3	8.1	1.3		27.4	21.0	31.1	31.4	20.1	25.9
SW	1.3	4.8	2.4	1.6	.1		10.2	17.0	9.9	6.6	11.9	11.6
W	.8	.9	.6	.0	.0		2.3	10.7	1.9	1.9	1.4	4.3
NW	1.4	6.0	5.6	.9	.1		14.0	16.2	11.8	12.7	19.8	12.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.5						4.5	.0	2.7	4.7	8.4	3.4
TOT OBS	130	280	201	103	14	730		16.3	298	106	179	147
TOT PCT	17.8	38.4	27.5	14.4	1.9		100.0		100.0	100.0	100.0	100.0

JUNE

PERIOD: (PRIMARY) 1892-1977
(OVER-ALL) 1884-1977

AREA 0028 COOK STRAIT
41.5S 174.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS) 11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.7	2.7	26.8	44.0	15.4	7.7	.7	16.7	100.0	298
06&09	4.7	4.7	30.2	35.8	16.0	8.5	.0	15.6	100.0	106
12&15	8.4	2.2	30.2	34.1	16.8	8.4	.0	15.5	100.0	179
18&21	3.4	3.4	23.1	42.9	18.4	8.8	.0	16.9	100.0	147
TOT	33	22	200	293	120	60	2	16.3		730
PCT	4.5	3.0	27.4	40.1	16.4	8.2	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	9.6	3.7	5.1	5.2		4.0
NE	1.0	.3	1.1	2.0		5.8
E	.3	.0	.5	1.4		6.4
SE	2.6	.9	3.8	3.7		5.3
S	6.3	2.2	7.1	10.7		5.5
SW	2.7	3.7	5.1	3.7		4.9
W	1.0	.6	.2	.2		3.2
NW	5.4	1.9	3.8	2.9		4.0
VAR	.0	.0	.0	.0		.0
CALM	1.2	.0	.3	.0		1.8
TOT OBS	97	49	87	94	321	4.7
TOT PCT	30.2	13.4	27.1	29.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.0	.0	.2	1.4	2.8	4.2	.0	.0	.0	.0	15.0	
.0	.0	.4	.9	.4	.6	.0	.2	.0	.0	1.9	
.0	.0	.0	.0	.6	.5	.0	.5	.0	.0	.6	
.3	.0	.1	.7	1.4	2.6	.1	.0	.0	.0	5.8	
.3	.0	1.1	2.4	6.2	3.0	.5	.2	.0	.0	12.5	
.3	.0	.1	.6	3.0	2.5	.0	.1	.0	.0	8.6	
.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	1.9	
.0	.0	.6	.5	.9	1.5	.3	.3	.0	.0	9.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	
3	0	8	21	50	48	3	4	0	0	184	321
.9	.0	2.5	6.5	15.6	15.0	.9	1.2	.0	.0	57.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >4500	.0	.0	.0	.0	.0	.0	.0	.0
* OR >3000	.6	1.2	1.2	1.2	1.2	1.2	1.2	1.2
* OR >2500	1.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
* OR >2000	13.9	17.2	17.5	17.5	17.5	17.5	17.5	17.5
* OR >1000	22.8	30.5	32.5	32.5	32.5	32.5	32.8	32.8
* OR >400	26.3	37.0	39.3	39.3	39.3	39.3	39.6	39.6
* OR >300	27.5	38.5	41.7	41.7	41.7	41.7	42.0	42.0
* OR >150	27.5	38.5	42.0	42.0	42.0	42.0	42.3	42.3
* OR > 0	27.5	38.8	42.6	42.6	42.9	42.9	43.2	43.2
TOTAL	93	131	144	144	145	145	146	146

TOTAL NUMBER OF OBS: 338 PCT FREQ NH <5/8: 56.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.1	16.2	10.0	13.7	4.3	4.6	7.5	7.3	24.5	.8	371

JUNE

PERIOD: (PRIMARY) 1892-1977
(OVER-ALL) 1884-1977

AREA 0028 COOK STRAIT
41.3S 174.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
<1/2	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	PCP	.4	.0	.0	.0	1.9	.1	.0	.0	.0	.0	2.5	
1/2<1	NO PCP	.6	.0	.0	.2	.6	.0	.0	.0	.0	.0	1.3	
	TOT %	1.0	.0	.0	.2	2.5	.1	.0	.0	.0	.0	3.9	
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	PCP	.6	*	.1	.0	1.2	.6	.0	.3	.0	.0	2.8	
2<5	NO PCP	.1	.0	.0	.0	.3	*	.0	*	.0	.0	.4	
	TOT %	.7	*	.1	.0	1.4	.7	.0	.3	.0	.0	3.3	
	PCP	4.2	1.1	.2	.6	3.7	.6	.1	1.2	.0	.6	12.4	
5<10	NO PCP	5.4	3.2	.1	1.0	4.3	1.5	.4	3.4	.0	1.9	21.4	
	TOT %	9.6	4.4	.4	1.6	8.0	2.2	.6	4.5	.0	2.5	33.8	
	PCP	.3	.2	.1	.3	.6	.1	.0	.1	.0	.0	1.6	
10+	NO PCP	13.8	3.0	.5	5.1	14.9	7.5	1.7	9.0	.0	1.9	57.3	
	TOT %	14.1	3.2	.6	5.4	15.5	7.6	1.7	9.0	.0	1.9	58.9	
	TOT OBS												672
	TOT PCT	25.5	7.6	1.2	7.1	27.4	10.6	2.3	13.9	.0	4.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0		.1	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1/2<1	4-10	.3	.0	.0	.0	.3	.0	.0	.0	.0		.6	
	11-21	.1	.0	.0	.1	.4	.0	.0	.0	.0		.7	
	22+	.6	.0	.0	*	1.6	.1	.0	.0	.0		2.3	
	TOT %	1.0	.0	.0	.2	2.5	.1	.0	.0	.0	.0	3.8	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.1	.1	.0	.0	.0	.0	.0	.1	.0		.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.1	.0	.0	.3	
	0-3	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
2<5	4-10	.0	.0	.0	.0	.3	.0	.0	.0	.0		.3	
	11-21	.5	*	.0	.0	.3	.5	.0	*	.0		1.3	
	22+	.2	.0	.1	.0	1.1	.2	.0	.2	.0		1.9	
	TOT %	.7	*	.1	.0	1.7	.7	.0	.4	.0	.0	3.7	
	0-3	.0	.3	.0	.1	.1	.0	.0	.1	.0	2.5	3.2	
5<10	4-10	3.5	3.0	.0	.0	.8	.4	.4	1.0	.0		9.1	
	11-21	4.4	1.0	.2	.6	3.1	.7	.1	2.7	.0		12.8	
	22+	1.7	*	.1	.8	4.1	1.0	.0	.8	.0		8.7	
	TOT %	9.5	4.3	.4	1.6	8.2	2.1	.6	4.6	.0	2.5	33.8	
	0-3	.3	.2	.0	.2	.5	.0	.1	.4	.0	1.9	3.7	
10+	4-10	4.1	1.7	.1	1.3	5.0	2.6	.8	2.1	.0		17.8	
	11-21	6.2	1.1	.3	3.1	4.4	3.9	.6	4.7	.0		24.4	
	22+	3.4	.1	.0	.7	5.4	1.1	.1	1.7	.0		12.5	
	TOT %	14.0	3.1	.6	5.3	15.3	7.5	1.7	8.9	.0	1.9	58.3	
	TOT OBS												681
	TOT PCT	25.3	7.6	1.1	7.0	27.8	10.5	2.3	14.0	.0	4.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.9	2.6	8.8	18.4	8.8	2.6	.9	.0	.0	43.0	57.0	114
06&09	3.1	.0	4.7	4.7	10.9	20.3	.0	1.6	.0	.0	45.3	54.7	64
12&15	.0	.0	.0	7.1	18.6	18.6	.0	.0	.0	.0	44.3	55.7	70
18&21	1.0	.0	1.9	4.9	10.7	15.5	.0	1.9	.0	.0	35.9	64.1	103
TOT	3	1	8	23	52	52	3	4	0	0	146	205	351
PCT	.9	.3	2.3	6.6	14.8	14.8	.9	1.1	.0	.0	41.6	58.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	4.0	.0	3.6	32.0	60.4	275
06&09	.9	2.7	.9	3.5	39.8	52.2	113
12&15	.0	2.8	.6	2.2	39.1	55.3	179
18&21	.0	4.8	.0	5.5	24.0	65.8	146
TOT	1	20	2	26	238	420	713
PCT	.1	3.6	.3	3.6	33.4	58.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <3	1000+ AND3+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	3.5	15.8	28.1	56.1	114
06&09	3.1	9.4	14.1	31.3	54.7	64
12&15	.0	.0	11.5	39.3	49.2	61
18&21	1.0	3.0	12.1	27.3	60.6	99
TOT	3	13	46	103	189	338
PCT	.9	3.8	13.6	30.5	55.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.4	.0	.0	.0	.0	1	.4
60/64	.0	.0	.0	.0	.0	.0	.0	.4	1	.4
55/59	.0	.0	.8	.0	1.2	3.5	8.8	9.2	61	23.5
50/54	.0	.0	1.2	.4	5.8	10.8	11.5	15.0	116	44.6
45/49	.0	.0	.0	.8	.8	3.5	11.9	13.8	80	30.8
40/44	.0	.0	.0	.0	.0	.4	.0	.0	1	.4
TOTAL	0	0	5	4	20	47	84	100	260	100.0
PCT	.0	.0	1.9	1.5	7.7	18.1	32.3	38.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.4	.0	.0
11.5	2.6	.0	.0	1.1	.9	.3	7.1	.0	.0
9.1	1.3	.4	4.6	13.7	7.5	.4	6.4	.0	1.2
2.4	.2	.0	4.6	12.4	5.1	1.6	3.3	.0	1.2
.0	.0	.0	.0	.0	.4	.0	.0	.0	.0
23.1	4.1	.4	9.2	27.5	13.8	2.3	17.2	.0	2.3

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	63	61	59	52	46	43	41	52.3	309
06&09	59	58	58	52	46	43	43	51.9	115
12&15	64	59	57	51	45	43	42	51.2	181
18&21	65	61	58	50	45	42	40	51.0	149
TOT	65	61	58	52	45	43	40	51.7	754

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	4.1	13.5	25.7	27.0	29.7	82	74
06&09	.0	5.3	10.5	13.2	31.6	39.5	84	38
12&15	.0	2.4	8.5	18.3	28.0	42.7	86	82
18&21	.0	2.4	2.4	15.9	41.5	37.8	86	82
TOT	0	9	23	52	89	103	85	276

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.0	.0	.3	.0	1	.0	.3
9/10	.0	.0	.0	.0	.0	.5	.0	.3	3	.0	.8
7/8	.0	.0	.0	.0	.3	2.7	.0	.0	11	.3	2.7
6	.0	.0	.0	.0	.3	2.7	.0	.0	11	.0	2.9
5	.0	.0	.0	.0	3.5	1.1	.0	.0	17	.0	4.5
4	.0	.0	.0	.3	8.5	.5	.0	.0	35	.0	9.3
3	.0	.0	.0	.3	5.3	1.1	.3	.0	26	.0	6.9
2	.0	.0	.3	.6	6.1	.8	.0	.0	30	.0	8.0
1	.0	.0	.0	1.9	2.9	1.1	.0	.0	22	.0	5.9
0	.0	.0	.8	5.3	2.9	.8	.3	.0	38	.3	9.8
-1	.0	.0	.5	4.0	4.3	.3	.0	.0	34	.3	8.8
-2	.0	.0	1.1	4.3	2.4	.0	.0	.0	29	.8	6.9
-3	.0	.0	2.4	3.2	.8	.0	.0	.0	24	.3	6.1
-4	.0	.0	3.2	2.7	1.1	.0	.0	.0	26	.0	6.9
-5	.0	.5	3.2	2.4	.5	.0	.0	.0	25	.0	6.6
-6	.0	1.6	2.4	1.3	.0	.0	.0	.0	20	.3	5.1
-7/-8	.0	1.6	2.9	.3	.0	.0	.0	.0	18	.0	4.8
-9/-10	.3	.0	.5	.0	.0	.0	.0	.0	3	.0	.8
-11/-13	.0	.5	.3	.0	.0	.0	.0	.0	3	.0	.8
TOTAL	1		66		146		3			8	368
		16		100		43		1	376		
PCT	.3	4.3	17.6	26.6	38.8	11.4	.8	.3	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.4	.0	.0	.0	.0	.9
1-2	.0	5.1	1.8	.0	.0	.0	7.0
3-4	.0	1.2	4.1	.9	.0	.0	6.2
5-6	.0	.3	2.3	1.3	.2	.0	3.9
7	.0	.0	.6	1.4	.3	.0	2.2
8-9	.0	.0	.8	1.0	.3	.0	2.0
10-11	.0	.0	.0	.4	.3	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.3	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	7.0	9.5	4.9	1.2	.0	23.1

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	.0	.0	.0	.0	.6
1-2	.3	2.1	.6	.0	.0	.0	2.9
3-4	.0	.3	1.2	.1	.0	.0	1.5
5-6	.0	.3	.1	.1	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.2	2.1	.1	.0	.0	5.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.3	.0	.0	.0	.3
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.4	.3	.0	.0	.6
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.8	.5	.0	.0	1.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.3	.0	.0	.0	.3
1-2	.0	.6	1.8	.0	.0	.0	2.4
3-4	.0	.8	.1	.0	.0	.0	.9
5-6	.0	.5	1.4	.3	.1	.0	2.2
7	.0	.0	1.1	.3	.1	.0	1.5
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.8	4.7	.6	.3	.0	7.3

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	2.0	.0	.0	.0	.0	2.5
1-2	.3	2.6	1.6	.0	.0	.0	4.4
3-4	.0	1.4	3.4	1.0	.0	.0	5.9
5-6	.0	.2	1.6	2.0	.4	.0	4.2
7	.0	.2	1.1	2.6	2.6	.4	6.9
8-9	.0	.0	.8	1.3	1.0	.0	3.1
10-11	.0	.0	.0	.5	.5	.0	1.0
12	.0	.0	.0	.0	.3	.0	.3
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.3	.2	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.4	8.5	7.6	5.2	.4	28.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5
1-2	.0	2.9	1.6	.0	.0	.0	4.5
3-4	.0	.9	2.8	.0	.0	.0	3.7
5-6	.0	.1	1.3	.0	.0	.0	1.4
7	.0	.1	.9	.1	.1	.1	1.1
8-9	.0	.0	.1	.8	.0	.0	.9
10-11	.0	.0	.0	.0	.3	.0	.3
12	.0	.0	.0	.3	.5	.0	.8
13-16	.0	.0	.0	.3	.3	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.3	.0	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.4	6.8	1.6	1.1	.1	13.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.2	.0	.0	.0	.0	1.2
3-4	.0	.2	.6	.2	.0	.0	.9
5-6	.0	.0	.3	.0	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	.8	.2	.0	.0	2.4

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.8	.3	.0	.0	.0	1.3	
1-2	.3	1.6	2.1	.0	.0	.0	3.9	
3-4	.0	1.6	2.5	.4	.0	.0	4.4	
5-6	.0	.0	1.1	.9	.1	.0	2.1	
7	.0	.0	.7	.1	.5	.0	1.3	
8-9	.0	.0	.3	.8	.0	.0	1.0	
10-11	.0	.0	.0	.3	.0	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	3.9	7.0	2.5	.6	.0	14.4	97.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.0	4.2	.5	.0	.0	.0	9.7	
1-2	1.0	15.9	9.7	.0	.0	.0	26.6	
3-4	.0	6.2	14.6	2.5	.0	.0	23.3	
5-6	.0	1.2	7.9	4.5	.7	.0	14.4	
7	.0	.2	4.2	4.5	3.5	.5	12.9	
8-9	.0	.0	2.5	4.0	1.2	.0	7.7	
10-11	.0	.0	.2	1.2	1.0	.0	2.5	
12	.0	.0	.0	.2	.7	.0	1.0	
13-16	.0	.0	.0	.5	.5	.0	1.0	
17-19	.0	.0	.0	.2	.2	.0	.5	
20-22	.0	.0	.0	.2	.2	.0	.5	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.0	27.8	39.7	17.9	8.2	.5	100.0	403

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	7.1	11.1	9.2	5.7	2.1	1.4	.5	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	164	5
6-7	.0	.0	2.6	4.0	6.6	7.1	4.0	.9	1.9	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	118	8
8-9	.0	.2	.7	1.4	3.5	1.4	3.1	1.2	2.6	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	62	9
10-11	.0	.9	.5	.5	.9	.2	.2	.2	1.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	21	8
12-13	.0	.0	1.7	.7	.9	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	9
>13	.0	.0	.0	1.4	.2	.5	.2	.0	.7	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	15	9
INDET	3.8	.0	.5	.9	.0	.5	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	28	4
TOTAL	18	35	72	77	76	50	38	13	36	3	2	2	1	0	0	0	0	0	0	423	7
PCT	4.3	8.3	17.0	18.2	18.0	11.8	9.0	3.1	8.5	.7	.5	.5	.2	.0	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1892-1977
(OVER-ALL) 1866-1977

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	8.2	3.0	2.8	.0	.0	.0	.0	13.3	3.0	.6	3.0	.0	.0	.0	.0	80.1
NE	18.4	3.5	.0	.0	.0	.0	.0	21.9	10.5	.0	.0	.0	.0	.0	.0	67.5
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	3.6	15.5	7.7	.0	.0	.0	.0	26.8	3.0	.0	1.2	.0	.0	.0	.0	69.0
S	12.0	15.9	6.3	.0	.0	.0	.9	34.7	3.5	.0	.7	.0	.0	.0	.0	61.1
SW	9.0	1.6	6.3	.0	.0	.0	3.1	20.0	.4	.0	1.6	.0	.0	.0	.0	78.0
W	3.7	.0	.0	.0	.0	.0	.0	3.7	.0	4.9	.0	.0	.0	.0	.0	91.5
NW	3.0	3.0	.4	.0	.0	.0	.0	6.3	.0	.4	.0	.0	1.5	.0	.0	91.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	11.6	4.7	4.7	.0	.0	.0	.0	20.9	.0	.0	.0	.0	2.3	.0	.0	76.7
TOT PCT	9.2	8.2	4.4	.0	.0	.0	.6	22.1	2.6	.3	1.1	.0	.3	.0	.0	73.5
TOT OBS:	619															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	9.1	7.0	3.5	.0	.0	.0	.3	19.6	1.7	.0	1.0	.0	.3	.0	.0	77.3
06&09	15.3	9.4	5.9	.0	.0	.0	1.2	30.6	1.2	.0	1.2	.0	1.2	.0	.0	65.9
12&15	6.4	12.9	4.3	.0	.0	.0	1.4	25.0	2.1	.7	.7	.0	.0	.0	.0	71.4
18&21	8.0	4.0	5.6	.0	.0	.0	.0	17.6	5.6	.8	1.6	.0	.0	.0	.0	74.4
TOT PCT	9.1	8.0	4.4	.0	.0	.0	.6	21.9	2.5	.3	1.1	.0	.3	.0	.0	73.9
TOT OBS:	636															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)								HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	8.3	9.8	1.9	.3	.0		21.1	13.2	23.1	25.7	22.9	13.4	21.1	18.2	15.8	17.8
NE	.7	2.0	1.6	.2	*	.0		4.5	9.9	6.5	4.7	1.4	2.8	4.2	6.3	.0	4.0
E	.0	.7	.9	.0	.0	.0		.9	9.8	.4	1.1	.0	.0	4.2	.0	.0	.0
SE	*	2.7	3.1	1.0	.0	.0		6.7	14.2	9.4	8.2	4.3	3.7	6.0	1.0	7.5	5.9
S	1.6	7.3	13.1	9.6	3.8	.3		35.7	19.4	36.3	36.5	21.4	40.7	24.7	42.2	40.0	42.1
SW	.6	2.4	3.6	1.9	1.3	.0		9.8	18.4	10.1	4.4	17.9	9.3	14.1	4.7	9.2	12.4
W	.0	1.6	1.8	.0	.0	.0		3.4	11.6	3.4	3.1	5.0	.0	3.1	4.2	6.7	3.7
NW	.3	4.4	4.4	1.2	.4	.0		10.7	13.4	7.2	12.6	7.1	15.3	11.2	13.0	17.5	9.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.2							7.2	.0	3.5	3.6	20.0	14.8	11.5	10.4	3.3	5.0
TOT OBS	75	197	252	106	39	2	671		14.8	170	137	35	54	96	48	30	101
TOT PCT	11.2	29.4	37.6	15.8	5.8	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)							HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.0	10.3	5.9	.9	.0		21.1	13.2	24.3	17.1	20.1	17.4
NE	1.5	2.6	.3	.1	.0		4.5	9.9	5.7	2.2	4.9	3.1
E	.3	.6	.1	.0	.0		.9	9.8	.7	.0	2.8	.0
SE	1.0	3.1	2.3	.3	.0		6.7	14.2	8.9	3.9	4.3	6.3
S	4.4	12.2	9.9	8.0	1.2		35.7	19.4	36.4	33.1	30.6	41.6
SW	1.3	3.9	2.0	2.6	.0		9.8	18.4	7.6	12.6	10.9	11.6
W	.5	2.4	.4	.0	.0		3.4	11.6	3.3	2.0	3.5	4.4
NW	1.8	6.1	2.2	.6	.0		10.7	13.4	9.6	12.1	11.8	11.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	7.2						7.2	.0	3.6	16.9	11.1	4.6
TOT OBS	148	277	155	83	8	671		14.8	307	89	144	131
TOT PCT	22.1	41.3	23.1	12.4	1.2		100.0		100.0	100.0	100.0	100.0

JULY

PERIOD: (PRIMARY) 1892-1977
(OVER-ALL) 1868-1977

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.6	4.2	32.9	38.8	13.7	6.2	.7	15.1	100.0	307
06&09	16.9	4.5	24.7	27.0	22.5	4.5	.0	14.0	100.0	89
12&15	11.1	5.6	25.7	36.8	18.8	2.1	.0	13.8	100.0	144
18&21	4.6	1.5	28.2	42.7	13.0	9.9	.0	15.9	100.0	131
TOT	48	27	197	252	106	39	2	14.8		671
PCT	7.2	4.0	29.4	37.6	15.8	5.8	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.6	2.7	6.9	7.0		5.0
NE	.9	.0	.0	1.3		5.2
E	.3	.4	.0	.0		2.5
SE	1.1	.6	2.5	2.8		6.0
S	9.5	1.7	10.0	10.0		5.1
SW	3.3	3.3	3.4	2.8		4.4
W	1.9	.7	1.5	1.9		4.4
NW	5.9	1.8	4.6	1.2		3.7
VAR	.0	.0	.0	.0		.0
CALM	2.8	.8	1.2	.4		2.8
TOT OBS	79	30	76	68	253	4.7
TOT PCT	31.2	11.9	30.0	26.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.4	.4	.0	2.4	2.5	2.0	.8	.0	.0	.0	13.8	
NE	.0	.0	.0	.0	.5	.0	.4	.0	.0	.0	1.3	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	
SE	.0	.0	.4	1.0	1.5	.0	.0	.4	.0	.0	3.7	
S	.0	.7	.4	5.3	6.7	2.2	.8	.0	.0	.0	15.0	
SW	.4	.1	.0	.8	1.8	1.4	.0	.8	.0	.0	7.4	
W	.0	.0	.0	.0	1.9	.0	.3	.0	.0	.0	3.4	
NW	.0	.0	.0	.0	1.0	.8	.9	.0	.0	.4	10.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.4	.0	.4	.4	.0	.0	.0	.0	4.0	
TOT OBS	2	3	3	24	41	17	8	3	0	1	151	253
TOT PCT	.8	1.2	1.2	9.5	16.2	6.7	3.2	1.2	.0	.4	59.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.8	.8	.8	.8	.8	.8	.8	.8
= OR >5000	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
= OR >3500	4.2	5.0	5.0	5.0	5.0	5.0	5.0	5.0
= OR >2000	9.9	11.1	11.5	11.5	11.5	11.5	11.5	11.5
= OR >1000	22.5	26.3	27.5	27.5	27.5	27.5	27.5	27.5
= OR >600	27.1	33.6	37.0	37.0	37.0	37.0	37.0	37.0
= OR >300	27.9	34.4	37.8	38.2	38.2	38.2	38.2	38.2
= OR >150	27.9	34.4	38.5	38.9	39.3	39.3	39.3	39.3
= OR > 0	28.2	34.7	38.9	39.3	39.7	39.7	40.1	40.1
TOTAL	74	91	102	103	104	104	105	105

TOTAL NUMBER OF OBS: 262

PCT FREQ NH <5/8: 59.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.0	19.9	10.7	12.0	5.8	6.2	5.2	8.9	19.9	.3	291

JULY

PERIOD: (PRIMARY) 1892-1977
(OVER-ALL) 1868-1977

AREA 0028 COOK STRAIT
41.4S 174.9E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.3	
	NO PCP	.2	.0	.0	.2	.0	.2	.0	.0	.0	.0	.5	
	TOT %	.2	.0	.0	.2	.2	.2	.0	.0	.0	.2	.8	
1/2<1	PCP	.5	.0	.0	.3	2.5	.9	.0	.0	.0	.5	4.7	
	NO PCP	.5	.0	.0	.1	.5	.2	.0	.0	.0	.0	1.3	
	TOT %	1.0	.0	.0	.4	3.0	1.1	.0	.0	.0	.5	6.0	
1<2	PCP	.2	.0	.0	.2	.0	.0	.0	.2	.0	.0	.5	
	NO PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	TOT %	.2	.0	.0	.2	.2	.0	.0	.2	.0	.0	.6	
2<5	PCP	.3	.2	.0	.2	.9	.2	.0	.0	.0	.0	1.8	
	NO PCP	.0	.0	.0	.2	.2	.2	.0	.2	.0	.0	.6	
	TOT %	.3	.2	.0	.4	1.1	.4	.0	.2	.0	.0	2.4	
5<10	PCP	1.2	.5	.0	.8	7.7	.7	.0	.4	.0	.6	12.0	
	NO PCP	4.1	1.4	.0	.6	4.8	.9	.0	1.3	.0	2.6	15.7	
	TOT %	5.3	1.9	.0	1.3	12.5	1.7	.0	1.7	.0	3.2	27.7	
10+	PCP	.4	.3	.0	.4	.9	.2	.1	.2	.0	.2	2.9	
	NO PCP	13.7	2.2	.8	4.0	17.1	6.8	3.2	8.8	.0	2.9	59.5	
	TOT %	14.4	2.5	.8	4.4	18.0	7.0	3.3	8.9	.0	3.1	62.5	
	TOT OBS												618
	TOT PCT	21.3	4.6	.8	6.8	34.9	10.3	3.3	10.9	.0	7.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.3	
	4-10	.2	.0	.0	.0	.0	.2	.0	.0	.0		.3	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.0	.0	.2	.2	.2	.0	.0	.0	.2	.8	
1/2<1	0-3	.0	.0	.0	.0	.5	.3	.0	.0	.0	.5	1.3	
	4-10	.2	.0	.0	.4	.6	.3	.0	.0	.0		1.4	
	11-21	.8	.0	.0	.0	.2	.0	.0	.0	.0		1.0	
	22+	.0	.0	.0	.0	1.8	.5	.0	.0	.0		2.3	
	TOT %	1.0	.0	.0	.4	3.0	1.1	.0	.0	.0	.5	5.9	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	22+	.2	.0	.0	.0	.0	.0	.0	.2	.0		.3	
	TOT %	.2	.0	.0	.2	.2	.0	.0	.2	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	11-21	.3	.2	.0	.3	.3	.2	.0	.0	.0		1.3	
	22+	.0	.0	.0	*	.8	.2	.0	.2	.0		1.1	
	TOT %	.3	.2	.0	.5	1.0	.4	.0	.2	.0	.0	2.6	
5<10	0-3	.5	.5	.0	.0	.6	.2	.0	.2	.0	3.2	5.1	
	4-10	2.4	.9	.0	.4	1.7	.2	.0	.4	.0		5.9	
	11-21	2.2	.5	.0	.6	5.0	.5	.0	.9	.0		9.6	
	22+	.3	.0	.0	.4	5.1	.8	.0	.2	.0		6.8	
	TOT %	5.3	1.9	.0	1.3	12.5	1.6	.0	1.6	.0	3.2	27.5	
10+	0-3	.3	.2	.0	*	.3	.0	.0	.2	.0	3.1	4.0	
	4-10	5.6	1.2	.6	1.8	5.0	1.9	1.7	4.2	.0		22.0	
	11-21	6.5	.9	.3	1.9	7.2	3.1	1.8	3.7	.0		25.4	
	22+	1.9	.2	.0	.6	5.6	1.9	.0	.9	.0		11.1	
	TOT %	14.3	2.5	.8	4.3	18.0	7.0	3.5	9.0	.0	3.1	62.5	
	TOT OBS												622
	TOT PCT	21.3	4.6	.8	6.9	34.8	10.2	3.5	10.9	.0	6.9	100.0	

JULY

PERIOD: (PRIMARY) 1892-1977
(OVER-ALL) 1868-1977

AREA 0028 COOK STRAIT
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	1.0	1.0	15.5	10.3	4.1	4.1	.0	.0	.0	36.1	63.9	97
06&09	.0	.0	.0	5.3	21.1	10.5	2.6	.0	2.6	.0	42.1	57.9	38
12&15	.0	.0	.0	5.6	13.0	5.6	3.7	5.6	.0	1.9	35.2	64.8	54
18&21	2.2	2.2	2.2	5.6	19.1	6.7	1.1	.0	.0	.0	39.3	60.7	89
TOT	2	3	3	25	42	17	8	3	1	1	105	173	278
PCT	.7	1.1	1.1	9.0	15.1	6.1	2.9	1.1	.4	.4	37.8	62.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.7	5.9	.7	3.8	22.0	66.8	286
06&09	.0	4.7	1.2	.0	36.5	57.6	85
12&15	1.4	5.0	.0	1.4	36.2	56.0	141
18&21	.8	7.1	.8	3.9	22.0	65.4	127
TOT	5	37	4	18	173	402	639
PCT	.8	5.8	.6	2.8	27.1	62.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	2.1	18.6	17.5	63.9	97
06&09	.0	.0	5.3	36.8	57.9	38
12&15	.0	.0	10.0	37.5	52.5	40
18&21	2.3	6.9	13.8	26.4	59.8	87
TOT	2	8	36	69	157	262
PCT	.8	3.1	13.7	26.3	59.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
55/59	.0	.0	.0	.8	2.5	5.3	2.1	3.3	34	14.0
50/54	.0	.0	.0	2.9	3.7	10.7	19.8	11.5	118	48.6
45/49	.0	.0	.0	.4	4.5	9.5	10.7	10.3	86	35.4
40/44	.0	.0	.0	.0	.0	.4	.8	.8	5	2.1
TOTAL	0	0	0	10	26	63	81	63	243	100.0
PCT	.0	.0	.0	4.1	10.7	25.9	33.3	25.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
6.8	.0	.0	.1	.3	.8	1.0	4.9	.0	.0
12.9	.8	.8	3.9	13.9	3.6	3.1	7.9	.0	1.6
1.2	.8	.0	1.7	18.8	8.3	1.9	1.7	.0	.8
.4	.0	.0	.4	.4	.8	.0	.0	.0	.0
21.3	1.6	.8	6.2	33.4	13.6	6.0	14.6	.0	2.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	61	59	57	50	45	42	39	50.0	313
06&09	61	59	57	50	43	39	39	50.2	89
12&15	59	57	55	49	43	41	39	49.2	150
18&21	59	58	55	49	44	40	37	49.1	127
TOT	61	59	57	50	44	40	37	50.0	679

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	10.9	18.8	18.8	28.1	23.4	79	64
06&09	.0	3.0	6.1	30.3	45.5	15.2	82	33
12&15	.0	1.3	9.3	24.0	30.7	34.7	85	75
18&21	.0	1.2	6.2	28.4	38.3	25.9	84	81
TOT	0	10	26	83	87	67	83	253

JULY

PERIOD: (PRIMARY) 1892-1977
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA THP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.0	.3	.0	1	.0	.3
9/10	.0	.0	.0	.3	.0	.3	.0	2	.0	.6
7/8	.0	.0	.0	.6	.6	1.6	.0	9	.3	2.5
6	.0	.0	.0	.0	.3	.9	.0	4	.0	1.2
5	.0	.0	.0	.3	1.9	.3	.3	9	.6	2.2
4	.0	.0	.0	.9	3.4	.9	.0	17	.3	5.0
3	.0	.0	.0	1.6	3.4	.0	.0	16	.0	5.0
2	.0	.0	.0	2.2	2.5	.3	.0	16	.0	5.0
1	.0	.0	.6	4.3	3.7	.9	.0	31	.0	9.6
0	.0	.0	1.2	3.7	2.2	.3	.0	24	.3	7.1
-1	.0	.0	2.8	8.1	1.6	.0	.0	40	.0	12.4
-2	.0	.0	3.1	5.6	1.2	.0	.0	32	.0	9.9
-3	.0	.0	7.1	2.5	.3	.0	.0	32	.0	9.9
-4	.0	.6	4.0	1.2	.3	.0	.0	20	.0	6.2
-5	.0	.9	7.1	2.2	.3	.0	.0	34	.3	10.2
-6	.3	1.6	2.5	.3	.0	.0	.0	15	.0	4.7
-7/-8	.3	1.9	2.2	.6	.0	.0	.0	16	.0	5.0
-9/-10	.3	.6	.0	.0	.0	.0	.0	3	.0	.9
-11/-13	.0	.0	.3	.0	.0	.0	.0	1	.0	.3
TOTAL	3		100		70		1		6	316
		18		111		19		322		
PCT	.9	5.6	31.1	34.5	21.7	5.9	.3	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.9	.0	.0	.0	.0	1.2
1-2	.3	5.3	4.0	.0	.0	.0	9.6
3-4	.0	1.2	3.8	.7	.0	.0	5.8
5-6	.0	.3	2.0	.9	.2	.0	3.4
7	.0	.0	.8	.7	.2	.0	1.8
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	7.7	10.6	2.7	.4	.0	22.0

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.4
1-2	.0	1.1	1.1	.0	.0	.0	2.2
3-4	.0	.1	.5	.1	.0	.0	.7
5-6	.0	.0	.4	.0	.1	.0	.5
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.3	2.0	.1	.1	.0	3.8

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.5	.3	.0	.0	.0	.7
3-4	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	.4	.0	.0	.0	1.1

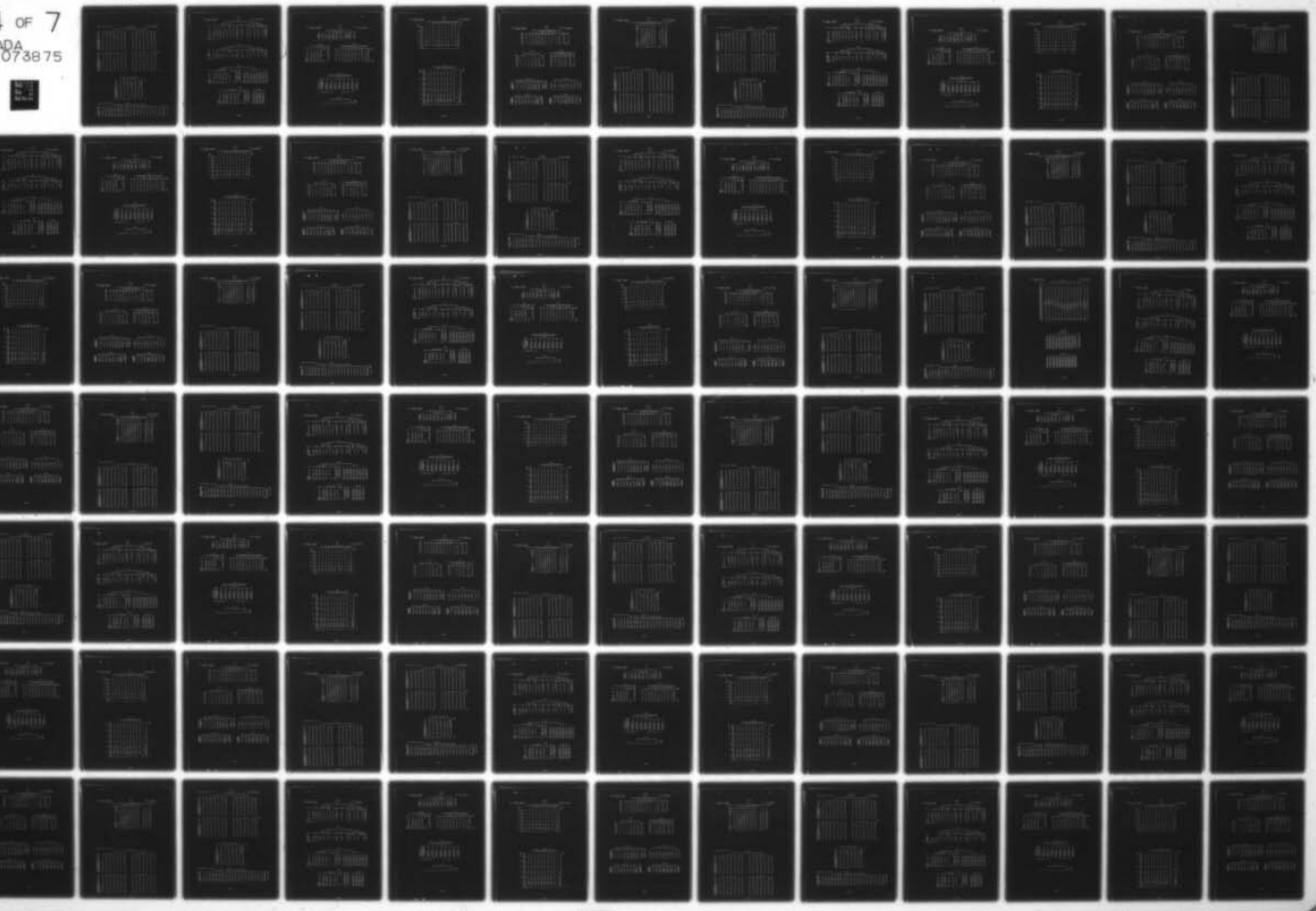
SE

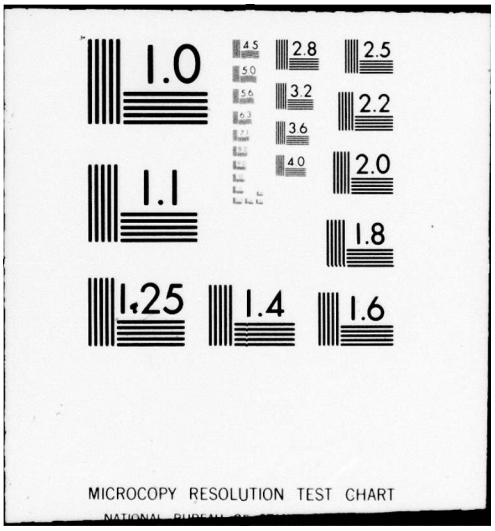
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1
1-2	.0	2.0	.4	.0	.0	.0	2.4
3-4	.0	.9	1.5	.1	.0	.0	2.5
5-6	.0	.0	1.2	.7	.0	.0	2.0
7	.0	.0	.5	.3	.0	.0	.9
8-9	.0	.3	.0	.0	.0	.0	.3
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.2	3.6	1.3	.0	.0	8.2

AD-A073 875 NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO), SELECTE--ETC(U)
SEP 79

UNCLASSIFIED NL

4 OF 7
ADA 073875




1.0
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5.6
6.3
MICROCOPY RESOLUTION TEST CHART

PERIOD: (OVER-ALL) 1963-1977

JULY

AREA 0028 COOK STRAIT 41.4S 174.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.5	.0	.0	.0	.0	.7
1-2	.0	4.6	2.2	.0	.0	.0	6.8
3-4	.0	2.2	6.8	1.3	.0	.0	10.4
5-6	.0	.5	3.8	2.6	.8	.0	7.7
7	.0	.0	.0	2.3	1.3	.0	3.6
8-9	.0	.0	.0	.5	.5	.0	1.1
10-11	.0	.0	.0	1.0	1.1	.3	2.4
12	.0	.0	.0	.5	.0	.0	.5
13-16	.0	.0	.0	.2	.0	.3	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.3	.0	.3
23-25	.0	.0	.3	.0	.0	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	7.9	13.0	8.6	4.0	.5	34.3

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.5	.7	.0	.0	.0	2.2
3-4	.0	2.3	2.2	.1	.0	.0	4.6
5-6	.0	.0	.7	.1	.0	.0	.8
7	.0	.0	.3	.3	.5	.0	1.1
8-9	.0	.0	.0	.5	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.5	.0	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	3.9	1.2	1.1	.0	10.0

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.0	.7	.0	.0	.0	2.7
3-4	.0	.3	.3	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.3	1.5	.0	.0	.0	3.8

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	1.1	.0	.0	.0	.0	1.3	
1-2	.0	4.0	.9	.0	.0	.0	4.9	
3-4	.0	1.1	2.4	.8	.0	.0	4.3	
5-6	.0	.0	.9	.4	.0	.0	1.3	
7	.0	.0	.3	.1	.1	.0	.4	
8-9	.0	.0	.3	.0	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.3	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	6.2	4.7	1.3	.3	.0	12.8	96.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.4	2.7	.0	.0	.0	.0	8.1	
1-2	.3	21.0	10.2	.0	.0	.0	31.5	
3-4	.0	8.3	17.5	3.2	.0	.0	29.0	
5-6	.0	.8	9.1	4.8	1.1	.0	15.9	
7	.0	.0	2.2	3.8	2.2	.0	8.1	
8-9	.0	.3	.5	1.3	.5	.0	2.7	
10-11	.0	.0	.0	1.1	1.1	.3	2.4	
12	.0	.0	.0	.5	.0	.0	.5	
13-16	.0	.0	.0	.3	.5	.3	1.1	
17-19	.0	.0	.0	.0	.3	.0	.3	
20-22	.0	.0	.0	.0	.3	.0	.3	
23-25	.0	.0	.3	.0	.0	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								372
TOT PCT	5.6	33.1	39.8	15.1	5.9	.5	100.0	

PERIOD: (OVER-ALL) 1954-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	7.3	10.7	9.9	5.2	2.9	2.1	.8	1.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	156	5
6-7	.0	.8	3.9	8.4	6.8	3.7	2.9	1.0	1.8	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	114	7
8-9	.0	.0	1.3	2.9	2.6	1.3	1.0	.5	1.6	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	46	8
10-11	.0	1.6	1.0	.0	.3	.5	1.0	.0	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	7
12-13	.0	.0	2.6	.3	.5	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	5
>13	.0	.0	.0	1.0	.8	.3	.3	.0	.3	.3	.0	.5	.0	.0	.0	.0	.0	.0	.0	13	10
INDET	1.6	.0	.5	1.0	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	4
TOTAL	8	37	77	90	44	38	29	9	19	6	2	3	0	0	0	0	0	0	0	382	6
PCT	2.1	9.7	20.2	23.6	16.8	9.9	7.6	2.4	5.0	1.6	.5	.8	.0	.0	.0	.0	.0	.0	.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1877-1977

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	9.1	5.0	4.6	.0	.0	.0	.0	17.8	5.0	.0	.0	.0	1.6		.0	75.6
NE	.0	.0	3.7	.0	.0	.0	.0	3.7	11.9	.0	.0	.0	.9		.0	83.5
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
SE	4.5	5.1	9.6	.0	.0	.0	.0	18.5	9.9	.0	.0	.0	.0		.0	72.6
S	6.5	1.9	2.2	.0	.0	.0	.0	9.9	7.0	.0	.0	.0	.7		1.0	81.4
SW	12.5	2.6	3.3	.0	.0	.0	.0	18.4	.7	.0	.0	.0	3.3		.0	77.6
W	12.3	.0	5.3	.0	.0	.0	.0	17.5	5.3	.0	.0	.0	.0		.0	77.2
NW	1.9	.9	.0	.0	.0	.0	.0	2.8	.9	.0	1.9	.0	.0		.0	94.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	8.3	.0	.0	.0	.0	8.3	.0	.0	.0	.0	.0		.0	91.7
TOT PCT	6.5	2.7	3.7	.0	.0	.0	.0	12.5	5.2	.0	.2	.0	1.0		.2	80.8
TOT OBS:	401															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	5.0	1.4	3.2	.0	.0	.0	.0	9.6	6.4	.0	.0	.0	.9		.5	82.6
06609	6.9	3.4	6.9	.0	.0	.0	.0	17.2	3.4	.0	.0	.0	3.4		.0	75.9
12615	6.2	4.9	7.4	.0	.0	.0	.0	16.0	4.9	.0	1.2	.0	.0		.0	77.8
18621	9.5	3.2	2.1	.0	.0	.0	.0	14.7	3.2	.0	.0	.0	1.1		.0	81.1
TOT PCT	6.4	2.6	4.0	.0	.0	.0	.0	12.5	5.2	.0	.2	.0	.9		.2	80.9
TOT OBS:	424															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.9	5.9	14.3	3.5	1.7	.0		26.3	16.9	32.6	35.6	31.7	40.0	15.1	11.1	21.1	15.4
NE	.2	3.1	3.1	.2	.0	.0		6.5	11.5	6.2	9.0	6.7	.0	6.6	13.9	6.3	3.3
E	.3	.7	.2	.2	.0	.0		1.4	9.9	.8	1.6	.0	.0	2.6	5.6	.0	1.1
SE	.1	3.5	5.1	1.6	.2	.0		10.3	15.1	8.2	12.0	1.7	6.7	11.8	6.9	6.3	16.2
S	.5	5.4	11.0	5.7	3.4	.5		26.4	19.9	31.2	21.7	25.0	18.3	25.4	15.3	21.1	32.4
SW	.9	3.1	3.9	1.2	.6	.2		9.5	15.6	7.2	1.4	1.7	10.0	16.5	12.5	16.4	15.4
W	.2	1.4	1.6	.2	.0	.0		3.3	12.1	3.6	.8	10.0	5.0	2.6	8.3	2.3	4.0
NW	.5	2.9	6.5	2.3	.1	.0		12.4	16.5	4.6	16.8	16.7	6.7	15.1	20.8	23.4	10.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.9							3.9	.0	5.6	1.1	6.7	13.3	4.4	5.6	3.1	1.5
TOT OBS	32	112	196	64	26	3	433		16.1	125	92	15	15	68	18	32	68
TOT PCT	7.4	25.9	45.3	14.8	6.0	.7		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.3	12.1	8.7	2.2	1.0		26.3	16.9	33.9	35.8	14.2	17.3
NE	1.2	4.4	.8	.1	.0		6.5	11.5	7.4	3.3	8.1	4.3
E	.8	.2	.4	.0	.0		1.4	9.9	1.2	.0	3.2	.8
SE	1.3	4.9	3.6	.6	.0		10.3	15.1	9.8	4.2	10.8	13.0
S	1.7	10.8	6.9	6.0	.9		26.4	19.9	27.2	21.7	23.3	28.8
SW	2.5	3.2	2.4	1.3	.2		9.5	15.6	4.7	5.8	15.7	15.8
W	.5	2.3	.5	.0	.0		3.3	12.1	2.4	7.5	3.8	3.5
NW	1.0	5.1	5.0	1.2	.1		12.4	16.5	9.8	11.7	16.3	14.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.9						3.9	.0	3.7	10.0	4.7	2.0
TOT OBS	66	186	122	49	10	433		16.1	217	90	86	100
TOT PCT	15.2	43.0	28.2	11.3	2.3		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.7	2.8	23.0	50.7	12.9	6.0	.9	16.3	100.0	217
06&09	10.0	.0	43.3	36.7	3.3	6.7	.0	12.9	100.0	30
12&15	4.7	8.1	29.1	36.0	16.3	4.7	1.2	14.9	100.0	86
18&21	2.0	2.0	24.0	44.0	21.0	7.0	.0	17.6	100.0	100
TOT	17	15	112	196	64	26	3	16.1		433
PCT	3.9	3.5	25.9	45.3	14.8	6.0	.7		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD.	TOTAL OBS	MEAN CLOUD COVER
N	3.3	3.5	8.0	6.9		5.4
NE	2.4	.2	2.1	1.7		4.2
E	.5	.0	.0	.0		1.0
SE	.2	1.1	4.5	2.9		6.3
S	2.5	4.1	10.6	10.4		6.1
SW	3.1	2.3	2.4	3.1		4.4
W	1.7	.7	1.6	1.0		4.4
NW	6.5	3.0	4.7	1.1		3.5
VAR	.0	.0	.0	.0		.0
CALM	1.9	.5	1.0	.0		2.7
TOT OBS	47	32	72	56	207	5.0
TOT PCT	22.7	15.5	34.8	27.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
1.0	.0	.5	1.0	2.3	1.8	.8	.0	.0	.0	14.3	
.0	.0	.0	.5	.0	.6	.6	.0	.0	.5	4.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	
.0	.0	.1	1.0	2.2	1.4	1.6	.0	.0	.0	2.4	
.0	.0	.4	3.6	6.9	2.3	.8	.0	.0	.0	11.7	
.0	.0	.0	2.2	1.7	1.6	.0	.0	.0	.0	5.6	
.0	.0	.0	.5	.8	.5	.0	.0	.0	.0	3.1	
.0	.0	.5	.0	1.1	1.0	.0	.0	.0	.5	12.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.5	.5	.0	.0	.0	2.4	
2	0	3	22	31	20	9	0	0	2	118	207
1.0	.0	1.4	10.6	15.0	9.7	4.3	.0	.0	1.0	57.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >5000	.9	.9	.9	.9	.9	.9	.9	.9
= OR >3500	4.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0
= OR >2000	13.2	14.2	14.6	14.6	14.6	14.6	14.6	14.6
= OR >1000	26.0	28.8	30.1	30.1	30.1	30.1	30.1	30.1
= OR >600	28.3	35.6	39.3	39.7	39.7	39.7	39.7	39.7
= OR >300	28.3	36.1	40.2	41.1	41.1	41.1	41.1	41.1
= OR >150	28.3	36.1	40.2	41.1	41.1	41.1	41.1	41.1
= OR > 0	28.3	37.0	41.1	42.0	42.0	42.0	42.0	42.0
TOTAL	62	81	90	92	92	92	92	92

TOTAL NUMBER OF OBS: 219 PCT FREQ NH <5/8: 58.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.0	19.3	8.3	10.6	7.0	5.2	6.6	10.5	19.7	.9	229

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.3	
	TOT %	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.3	
1/2<1	PCP	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
1<2	PCP	.5	.0	.0	.1	.2	.1	.2	.0	.0	.0	1.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
	TOT %	.5	.0	.0	.1	.2	.1	.2	.3	.0	.0	1.3	
2<5	PCP	.8	.0	.0	.1	.6	.6	.3	.0	.0	.0	2.3	
	NO PCP	.2	.3	.0	.3	.3	.3	.0	.1	.0	.0	1.3	
	TOT %	.9	.3	.0	.3	.9	.8	.3	.1	.0	.0	3.5	
5<10	PCP	2.9	.3	.0	.9	1.6	.6	.0	.4	.0	.3	6.8	
	NO PCP	2.2	1.6	.1	1.3	4.0	1.7	.2	1.2	.0	.3	12.5	
	TOT %	5.1	1.8	.1	2.2	5.6	2.3	.2	1.6	.0	.5	19.3	
10+	PCP	.8	.0	.0	.5	.0	.6	.2	.0	.0	.0	2.0	
	NO PCP	20.2	4.8	.8	6.4	18.9	5.8	2.8	11.5	.0	2.5	73.5	
	TOT %	20.9	4.8	.8	6.9	18.9	6.3	2.9	11.5	.0	2.5	75.5	
TOT OBS													400
TOT PCT		27.4	6.8	.9	9.8	25.7	9.5	3.6	13.4	.0	3.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.2	.1	.0	.0	.0		.2	
	TOT %	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0		.2	
	11-21	.5	.0	.0	.0	.0	.1	.2	.0	.0		.7	
	22+	.0	.0	.0	.1	.2	.0	.0	.0	.0		.2	
	TOT %	.5	.0	.0	.1	.3	.2	.2	.2	.0	.0	1.5	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.2	.2	.0	.0		.7	
	11-21	.9	.2	.0	.3	.4	.3	.0	.1	.0		2.2	
	22+	.0	.0	.0	.0	.2	.2	.0	.0	.0		.5	
	TOT %	.9	.2	.0	.3	.9	.8	.2	.1	.0	.0	3.5	
5<10	0-3	.0	.1	.1	.0	.0	.2	.0	.0	.0	.5	1.0	
	4-10	.9	.9	.0	.6	.9	.5	.0	.5	.0		4.2	
	11-21	2.2	.7	.0	.9	1.7	.9	.2	.6	.0		7.2	
	22+	1.9	.1	.0	.7	2.9	.6	.0	.5	.0		6.7	
	TOT %	5.0	1.8	.1	2.2	5.5	2.2	.2	1.6	.0	.5	19.2	
10+	0-3	.9	.1	.0	.0	.2	.5	.2	.3	.0	2.5	4.7	
	4-10	5.5	2.4	.5	2.6	3.9	2.4	1.2	2.6	.0		21.1	
	11-21	11.2	2.1	.2	3.4	8.9	2.5	1.3	6.4	.0		36.1	
	22+	3.2	.1	.0	1.0	5.8	.9	.2	2.1	.0		13.4	
	TOT %	20.8	4.7	.7	7.0	18.9	6.3	2.9	11.4	.0	2.5	75.4	
TOT OBS													402
TOT PCT		27.3	6.8	.9	9.8	25.8	9.0	3.5	13.3	.0	3.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1877-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 2499	2500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.2	.0	1.2	10.8	12.0	8.4	2.4	.0	.0	.0	36.1	63.9	83
06&09	6.3	.0	.0	.0	12.5	12.5	.0	.0	.0	.0	31.3	68.8	16
12&15	.0	.0	2.2	2.2	13.3	6.7	11.1	.0	.0	4.4	40.0	60.0	45
18&21	.0	.0	1.3	15.0	20.0	11.3	2.5	.0	.0	.0	50.0	50.0	80
TOT	2	0	3	22	34	21	9	0	0	2	93	131	224
PCT	.9	.0	1.3	9.8	15.2	9.4	4.0	.0	.0	.9	41.5	58.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.5	.9	2.7	17.8	78.1	219
06&09	3.4	.0	3.4	.0	24.1	69.0	29
12&15	.0	.0	1.2	6.2	19.8	72.8	81
18&21	.0	.0	2.1	4.2	18.8	75.0	96
TOT	1	1	6	15	80	322	425
PCT	.2	.2	1.4	3.5	18.8	75.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NM >4/8),BY HOUR

HOUR (GMT)	<150 <5OYD	<600 <1	<1000 <5	1000+ AND5+	NM <5/8 AND 5+	TOTAL OBS
00&03	1.3	2.5	13.8	23.8	62.5	80
06&09	6.3	6.3	6.3	25.0	68.8	16
12&15	.0	2.3	9.3	32.6	58.1	43
18&21	.0	1.3	17.5	32.5	50.0	80
TOT	2	5	30	63	126	219
PCT	.9	2.3	13.7	28.8	57.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.5	.0	.5	.0	.0	2	1.0
55/59	.0	.0	.0	.5	3.0	3.5	4.0	4.0	30	15.1
50/54	.0	.0	.0	.0	7.0	7.5	22.6	14.6	103	51.8
45/49	.0	.0	.0	.0	6.0	2.5	12.1	9.5	60	30.2
40/44	.0	.0	.0	.0	.0	.0	2.0	.0	4	2.0
TOTAL	0	0	0	2	32	28	81	56	199	100.0
PCT	.0	.0	.0	1.0	16.1	14.1	40.7	28.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.5	.0	.0	.0	.0	.0	.5	.0	.0	.0
8.0	1.1	.0	.0	.5	.6	.4	4.4	.0	.0
10.9	3.8	.9	6.2	9.7	7.2	2.4	8.8	.0	2.0
1.4	.5	.0	5.4	15.7	5.2	1.4	.6	.0	.0
.0	1.5	.0	.0	.0	.0	.0	.0	.0	.5
20.9	6.9	.9	11.6	25.9	12.9	4.6	13.8	.0	2.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	63	61	59	52	46	43	43	52.6	227
06&09	57	56	56	51	46	44	44	51.6	51
12&15	62	57	56	50	45	42	42	50.3	89
18&21	57	56	55	50	45	43	43	49.9	102
TOT	63	61	59	51	45	43	42	51.4	449

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.9	27.5	25.5	23.5	19.6	78	51
06&09	.0	5.6	.0	38.9	27.8	27.8	84	18
12&15	.0	.0	9.4	10.9	50.0	29.7	86	64
18&21	.0	.0	15.2	8.9	46.8	29.1	85	79
TOT	0	3	32	34	86	57	83	212

AUGUST

PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1877-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.7	.0	1	.0	.7
11/13	.0	.0	.0	.7	.0	.7	2	.0	1.4
9/10	.0	.0	.0	.7	.0	.7	2	.0	1.4
7/8	.0	.0	.7	.0	.0	.0	1	.0	.7
6	.0	.0	.0	1.4	.0	.0	2	.0	1.4
5	.0	.7	1.4	.7	.0	.7	5	.0	3.5
4	.0	.0	.0	3.5	.7	.0	6	.0	4.2
3	.0	.0	.7	4.2	1.4	.7	10	.0	7.0
2	.0	.0	2.1	4.2	.7	.0	10	.0	7.0
1	.0	.0	6.3	.0	.0	.0	9	.0	6.3
0	.0	1.4	10.6	1.4	1.4	.0	21	.0	14.8
-1	.0	.0	6.3	2.8	.0	.0	13	.0	9.2
-2	.0	2.8	6.3	1.4	.0	.0	15	.0	10.6
-3	.0	2.8	5.6	.7	.0	.0	13	.0	9.2
-4	.0	3.5	1.4	.0	.0	.0	7	.0	4.9
-5	.0	4.9	2.8	.7	.0	.0	12	.7	7.7
-6	.0	2.8	.0	.0	.0	.0	4	.0	2.8
-7/-8	1.4	1.4	.7	.0	.0	.0	5	.0	3.5
-9/-10	.0	.7	1.4	.0	.0	.0	3	.0	2.1
-11/-13	.0	.0	.0	.7	.0	.0	1	.0	.7
TOTAL	2		66		7		142	1	141
		30		33		4			
PCT	1.4	21.1	46.5	23.2	4.9	2.8	100.0	.7	99.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.2	.0	.0	.0	.0	1.1
1-2	.3	4.7	4.4	.0	.0	.0	9.4
3-4	.0	.6	7.6	.5	.0	.0	8.7
5-6	.0	.3	2.5	2.3	.0	.0	5.1
7	.0	.0	1.0	1.0	.3	.0	2.3
8-9	.0	.0	.0	.0	.3	.0	.3
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	5.8	15.5	4.1	.6	.0	27.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	.0	.0	.0	.0	.7
1-2	.0	1.5	1.1	.0	.0	.0	2.7
3-4	.0	.0	1.2	.1	.0	.0	1.3
5-6	.0	.0	.3	.2	.0	.0	.5
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.2	2.7	.2	.0	.0	5.1

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	.3	.0	.0	.0	.0	.3
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.7	.0	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.6	.9	.0	.0	.0	1.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	1.8	1.1	.0	.0	.0	3.0
3-4	.0	.8	1.4	.7	.0	.0	3.0
5-6	.0	.0	1.6	.5	.0	.0	2.1
7	.0	.0	.7	.2	.1	.0	1.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.0	5.0	1.7	.1	.0	9.7

PERIOD: (OVER-ALL) 1963-1977 AUGUST AREA 0028 COOK STRAIT 41.4S 174.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	2.6	1.8	.0	.0	.0	4.4
3-4	.0	1.9	5.3	1.8	.0	.0	9.1
5-6	.0	.0	2.5	1.1	.6	.0	4.2
7	.0	.0	2.1	1.1	1.2	.0	4.4
8-9	.0	.0	.3	.0	.3	.0	.6
10-11	.0	.0	.0	1.3	.0	.0	1.3
12	.0	.0	.3	.0	.6	.0	1.0
13-16	.0	.0	.2	.0	.3	.0	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.3	.0	.3	.6
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.8	12.6	5.7	3.1	.3	26.5

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.6
1-2	.0	1.5	1.3	.0	.0	.0	2.8
3-4	.0	.6	2.1	.3	.0	.0	3.0
5-6	.0	.0	.7	.1	.1	.0	.9
7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.3	.0	.3
10-11	.0	.0	.0	.0	.3	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.3	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.4	4.2	.7	.7	.3	8.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2
1-2	.0	.8	.6	.0	.0	.0	1.4
3-4	.0	.9	1.4	.0	.0	.0	2.3
5-6	.0	.0	.0	.2	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.7	1.9	.2	.0	.0	4.1

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	.1	.0	.0	.0	.0	.5	
1-2	.0	1.8	3.1	.0	.0	.0	5.0	
3-4	.0	.4	2.5	.7	.0	.0	3.6	
5-6	.0	.0	2.0	.7	.0	.0	2.7	
7	.0	.0	.6	.6	.0	.0	1.3	
8-9	.0	.0	.0	.3	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.3	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	2.3	8.3	2.7	.0	.0	13.7	96.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.1	2.2	.0	.0	.0	.0	8.3	
1-2	.3	15.3	13.4	.0	.0	.0	29.1	
3-4	.0	5.1	21.4	4.2	.0	.0	30.7	
5-6	.0	.3	9.9	5.1	.6	.0	16.0	
7	.0	.0	4.5	2.9	1.6	.0	8.9	
8-9	.0	.0	.3	.3	1.0	.0	1.6	
10-11	.0	.0	.0	1.9	.3	.0	2.2	
12	.0	.0	.3	.0	.6	.0	1.0	
13-16	.0	.0	.3	.9	.3	.3	1.9	
17-19	.0	.0	.0	.6	.0	.0	.0	
20-22	.0	.0	.0	.9	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.3	.0	.3	.6	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.4	23.0	50.2	15.9	4.5	.6	100.0	313

PERIOD: (OVER-ALL) 1964-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	12.0	11.1	10.8	9.0	1.2	1.2	.6	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	135	4
6-7	.0	1.5	4.2	3.6	4.8	4.2	3.0	.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	79	6
8-9	.0	.3	1.5	1.2	1.2	2.1	.9	.3	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	7
10-11	.0	2.7	.3	1.8	.3	.6	.6	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	9
12-13	.0	.0	3.9	1.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	4
>13	.0	.0	.0	2.7	.6	.6	.9	.3	.9	.3	.3	.0	.0	.6	.0	.0	.0	.0	.0	24	11
INDET	1.8	.0	.3	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	2
TOTAL	6	55	71	74	55	30	22	6	8	4	1	0	0	2	0	0	0	0	0	334	6
PCT	1.8	16.5	21.3	22.2	16.5	9.0	6.6	1.8	2.4	1.2	.3	.0	.0	.6	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1968-1977
(OVER-ALL) 1868-1977

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41.4S 174.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	2.1	1.4	1.4	.0	.0	.0	.0	4.9	3.9	.0	1.1	.0	1.2		.0	89.5
NE	.0	.0	4.8	.0	.0	.0	.0	4.8	1.2	.0	.0	.0	1.2		.0	92.9
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
SE	5.8	.0	1.2	.0	.0	.0	.0	7.0	9.9	.0	.0	.0	2.9		.0	80.1
S	9.8	.7	.4	.0	.0	.0	.0	10.9	4.3	.0	2.9	.0	1.3		.0	78.7
SW	2.7	.0	.0	.0	.0	.0	.0	2.7	3.6	.0	.0	.0	.0		.0	93.8
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1		.0	97.9
NW	7.3	2.4	2.4	.0	.0	.0	.0	12.2	2.4	.0	1.2	.0	1.2		.0	82.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
TOT PCT	5.0	.9	1.1	.0	.0	.0	.0	6.9	4.3	.0	1.3	.0	1.3		.0	86.1
TOT OBS:	461															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.8	.4	.8	.0	.0	.0	.0	6.0	4.8	.0	.8	.0	2.4		.0	85.9
06&09	3.3	.0	1.7	.0	.0	.0	.0	5.0	1.7	.0	.0	.0	.0		.0	93.3
12&15	3.1	2.1	2.1	.0	.0	.0	.0	7.2	2.1	.0	3.1	.0	.0		.0	87.6
18&21	8.8	1.3	1.3	.0	.0	.0	.0	11.3	6.3	.0	2.5	.0	.0		.0	80.0
TOT PCT	4.9	.8	1.2	.0	.0	.0	.0	7.0	4.1	.0	1.4	.0	1.2		.0	86.2
TOT OBS:	485															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.1	10.3	19.8	4.3	1.9	.0		31.5	15.6	35.0	36.7	40.3	19.6	27.2	39.8	25.0	19.3
NE	.3	2.1	1.8	.5	.0	.0		4.6	12.7	5.9	5.6	9.0	2.1	3.2	.0	.8	3.8
E	.2	.6	1.5	.2	.0	.0		2.4	13.6	.7	1.9	4.9	10.4	3.2	4.5	.0	1.9
SE	.2	2.0	4.2	2.1	.5	.0		9.1	17.4	8.8	7.5	8.6	11.5	9.8	4.5	10.8	14.6
S	.4	5.9	9.4	7.8	5.1	1.0		29.6	22.7	32.9	26.2	27.1	44.8	25.3	13.6	25.8	38.2
SW	.2	1.5	2.9	.9	.3	.0		5.8	16.7	2.9	2.8	4.2	2.1	9.2	6.8	13.3	12.9
W	.3	2.0	1.6	1.0	.0	.0		4.9	13.1	2.9	3.0	8.3	4.2	7.9	4.5	13.3	2.8
NW	.1	1.8	3.2	1.9	.9	.0		9.5	18.2	7.5	19.6	.7	9.4	11.7	21.6	10.8	3.3
VAR	.0	.0	.6	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.6							2.6	.0	3.6	2.8	.0	.0	2.5	4.5	.0	3.8
TOT OBS	26	129	198	92	41	5	491		17.5	140	107	36	24	79	22	30	53
TOT PCT	5.3	26.3	40.3	18.7	8.4	1.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	5.8	13.7	8.2	3.3	.4		31.5	15.6	35.7	40.4	30.0	21.4
NE	1.1	2.2	1.0	.3	.0		4.6	12.7	5.8	6.3	2.5	2.7
E	.2	1.6	.4	.2	.0		2.4	13.6	1.2	7.1	3.5	1.2
SE	.9	3.7	3.3	1.1	.1		9.1	17.4	8.2	7.9	8.7	13.3
S	2.3	7.5	9.0	9.1	1.8		29.6	22.7	30.0	34.2	22.8	33.7
SW	.6	2.5	2.0	.6	.0		5.8	16.7	2.8	3.3	6.7	12.7
W	1.6	2.1	.6	.6	.0		4.9	13.1	2.9	6.7	7.2	6.6
NW	.8	3.2	4.0	1.3	.2		9.5	18.2	10.1	4.2	13.9	6.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.6						2.6	.0	3.2	.0	3.0	2.4
TOT OBS	78	180	140	81	12	491		17.5	247	80	101	83
TOT PCT	15.9	36.7	28.5	16.5	2.4		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.2	2.8	27.5	38.9	18.0	10.9	1.6	17.6	100.0	247
06&09	.0	1.7	26.7	40.0	23.3	8.3	.0	18.1	100.0	60
12&15	3.0	5.0	26.7	40.6	20.8	4.0	.0	15.7	100.0	101
18&21	2.4	.0	21.7	44.6	26.1	6.0	1.2	18.8	100.0	83
TOT	13	13	129	198	92	41	5	17.5		491
PCT	2.6	2.6	26.3	40.3	18.7	8.4	1.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	9.5	4.3	10.9	4.2		4.2
NE	1.7	1.3	1.6	.6		4.0
E	.4	.8	.3	.7		4.4
SE	2.0	.7	5.3	3.6		5.8
S	3.9	6.1	12.5	10.3		5.6
SW	3.2	1.1	2.4	.8		4.1
W	2.3	1.1	1.3	.0		3.5
NW	.8	1.1	2.9	.5		4.7
VAR	.0	.0	.0	.0		.0
CALM	1.1	.0	.8	.0		2.4
TOT OBS	66	44	101	55	266	4.8
TOT PCT	24.8	16.5	38.0	20.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.4	1.9	4.8	1.4	.0	.9	.0	.0	19.9	
NE	.0	.0	.0	.0	.5	.0	.0	.2	.0	.0	4.5	
E	.0	.0	.0	.9	.0	.7	.0	.0	.0	.0	1.1	
SE	.0	.2	.4	1.6	2.1	1.0	.0	.0	.0	.0	6.2	
S	.4	.6	.8	6.7	4.3	3.5	.7	.4	.0	.0	15.6	
SW	.0	.0	.0	.5	1.2	.5	.2	.0	.4	.0	4.9	
W	.0	.0	.0	.0	.9	.4	.3	.0	.0	.0	3.8	
NW	.0	.0	.0	1.1	.4	.1	.0	.0	.0	.0	3.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	1.1	
TOT OBS	1	2	4	31	36	21	4	4	1	0	162	266
TOT PCT	.4	.8	1.5	11.7	13.5	7.9	1.5	1.5	.4	.0	60.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.4	.4	.4	.4	.4	.4	.4	.4
= OR >5000	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
= OR >3500	2.5	2.9	3.2	3.2	3.2	3.2	3.2	3.2
= OR >2000	9.0	10.8	11.2	11.2	11.2	11.2	11.2	11.2
= OR >1000	18.8	24.2	25.3	25.3	25.3	25.3	25.3	25.3
= OR >600	23.5	33.2	36.5	36.5	36.5	36.5	36.8	36.8
= OR >300	23.8	33.9	37.9	37.9	37.9	37.9	38.3	38.3
= OR >150	24.5	34.7	38.3	38.6	38.6	38.6	39.0	39.0
= OR > 0	24.5	34.7	38.3	38.6	38.6	38.6	39.0	39.0
TOTAL	68	96	106	107	107	107	108	108

TOTAL NUMBER OF OBS: 277 PCT FREQ NH <5/8: 61.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.8	21.8	9.4	13.3	5.2	7.1	10.1	6.8	17.2 .3	308

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.0	.0	.2	.2	.0	.1	.1	.0	.0	.9	
	TOT %	.2	.0	.0	.2	.2	.0	.1	.1	.0	.0	.9	
2<5	PCP	.2	.0	.0	.4	.7	.0	.0	.2	.0	.0	1.5	
	NO PCP	.4	.1	.0	.0	1.5	.0	.0	.2	.0	.0	2.2	
	TOT %	.6	.1	.0	.4	2.2	.0	.0	.4	.0	.0	3.7	
5<10	PCP	.5	.2	.0	.2	2.1	.1	.0	.5	.0	.0	3.7	
	NO PCP	3.5	.4	.6	1.1	6.2	.8	.6	.9	.0	.0	14.1	
	TOT %	4.1	.6	.6	1.3	8.2	.9	.6	1.3	.0	.0	17.8	
10+	PCP	.8	.0	.0	.0	.6	.1	.0	.3	.0	.0	1.7	
	NO PCP	25.2	3.9	1.7	7.3	18.9	5.1	4.4	6.6	.0	2.6	75.7	
	TOT %	26.0	3.9	1.7	7.3	19.5	5.2	4.4	6.9	.0	2.6	77.4	
	TOT OBS												461
	TOT PCT	30.9	4.6	2.3	9.3	30.3	6.1	5.1	8.9	.0	2.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.1	.1	.0		.2	
	11-21	.2	.0	.0	.4	.2	.0	.0	.0	.0		.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.0	.0	.4	.2	.0	.1	.1	.0	.0	1.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.4	.0	.0	.2	.4	.0	.0	.0	.0		1.1	
	11-21	.2	.1	.0	.2	.6	.0	.0	.2	.0		1.3	
	22+	.0	.0	.0	.0	1.1	.0	.0	.2	.0		1.3	
	TOT %	.6	.1	.0	.4	2.2	.0	.0	.4	.0	.0	3.7	
5<10	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.1	.2	.0	.2	1.9	.2	.0	.1	.0		2.4	
	11-21	1.9	.3	.4	.3	1.6	.5	.4	.8	.0		6.3	
	22+	1.8	.1	.2	.8	5.1	.2	.2	.5	.0		8.8	
	TOT %	4.0	.6	.6	1.3	8.2	.9	.6	1.5	.0	.0	17.7	
10+	0-3	1.0	.1	.2	.2	.4	.2	.3	.1	.0	2.6	5.0	
	4-10	9.8	2.0	.6	1.7	4.1	1.4	2.0	1.6	.0		23.3	
	11-21	11.1	1.5	.9	3.3	6.9	2.5	1.2	3.9	.0		31.3	
	22+	4.3	.4	.0	2.0	7.9	1.0	.9	1.3	.0		17.9	
	TOT %	26.1	4.0	1.7	7.3	19.3	5.1	4.4	6.8	.0	2.6	77.4	
	TOT OBS												464
	TOT PCT	31.0	4.6	2.3	9.4	30.1	6.0	5.1	8.8	.0	2.6	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	1.6	1.6	10.7	13.1	.8	1.6	2.5	.0	.0	32.0	68.0	122
06&09	.0	.0	.0	15.9	18.2	11.4	.0	.0	.0	.0	45.5	54.5	44
12&15	1.7	.0	.0	5.1	11.9	11.9	3.4	1.7	.0	.0	35.6	64.4	59
18&21	.0	.0	3.1	13.8	12.3	15.4	.0	.0	1.5	.0	46.2	53.8	65
TOT	1	2	4	32	39	23	4	4	1	0	110	180	290
PCT	.3	.7	1.4	11.0	13.4	7.9	1.4	1.4	.3	.0	37.9	62.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.4	.0	.8	4.4	16.1	78.3	249
06&09	.0	.0	.0	1.7	21.7	76.7	60
12&15	.0	.0	.0	4.1	16.5	79.4	97
18&21	.0	.0	3.7	1.2	25.6	69.5	82
TOT	1	0	5	17	90	375	488
PCT	.2	.0	1.0	3.5	18.4	76.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	4.1	14.8	17.2	68.0	122
06&09	.0	.0	16.3	27.9	55.8	43
12&15	.0	.0	10.6	34.0	55.3	47
18&21	.0	3.1	18.5	27.7	53.8	65
TOT	0	7	42	67	168	277
PCT	.0	2.5	15.2	24.2	60.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.4	.0	.0	.0	.0	.0	1	.4
65/69	.0	.0	.0	.0	.4	.0	.0	.0	1	.4
60/64	.0	.0	.4	.4	.0	.8	.4	.4	6	2.3
55/59	.0	.0	.8	.0	5.4	8.1	3.9	3.1	55	21.2
50/54	.0	.0	.0	1.2	5.4	14.7	16.2	14.3	134	51.7
45/49	.0	.0	.4	.8	1.9	5.4	8.5	5.0	57	22.0
40/44	.0	.0	.0	.8	.0	.0	1.2	.0	5	1.9
TOTAL	0	0	5	8	34	75	78	59	259	100.0
PCT	.0	.0	1.9	3.1	13.1	29.0	30.1	22.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
1.1	.0	.0	.4	.0	.0	.4	.5	.0	.0
13.3	1.5	.0	1.5	.4	.4	.4	3.7	.0	.0
11.0	1.8	1.7	8.3	18.0	3.4	2.6	4.5	.0	.4
1.4	.3	.3	2.7	9.7	4.2	2.0	.0	.0	1.5
.0	.0	.0	.2	1.4	.3	.0	.0	.0	.0
27.1	4.1	2.0	13.1	29.4	8.2	5.4	8.7	.0	1.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	66	64	61	55	46	43	43	54.8	258
06&09	70	69	61	53	47	45	45	53.3	62
12&15	63	61	57	52	44	41	41	51.0	105
18&21	59	58	55	50	45	44	44	50.3	84
TOT	70	64	61	54	46	43	41	53.1	509

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	5.7	25.0	35.2	19.3	14.8	77	88
06&09	.0	4.2	10.4	41.7	35.4	8.3	78	48
12&15	.0	5.2	6.5	23.4	32.5	32.5	84	77
18&21	.0	3.4	5.1	23.7	35.6	32.2	84	59
TOT	0	13	35	83	80	61	81	272

SEPTEMBER

PERIOD: (PRIMARY) 1968-1977
(OVER-ALL) 1868-1977

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.5	.0	.0	1	.0	.5
11/13	.0	.0	.0	.5	.0	.0	.5	2	.0	1.0
9/10	.0	.0	.5	.0	1.5	1.0	.0	6	.0	3.0
7/8	.0	.0	.5	.0	.5	.5	.5	4	.0	2.0
6	.0	.0	.0	.5	.0	.0	.0	1	.0	.5
5	.0	.0	.0	4.5	1.0	.0	.0	11	.0	5.5
4	.0	.0	1.0	3.5	.5	1.0	.0	12	.5	5.5
3	.0	.0	1.0	3.5	1.0	.0	.0	11	.0	5.5
2	.0	.5	2.5	7.5	2.5	.5	.0	27	.0	13.5
1	.0	.5	.5	4.0	.5	.0	.0	11	.5	5.0
0	.0	1.5	3.5	4.5	1.5	.0	.0	22	.0	11.0
-1	.5	.0	3.5	3.5	1.5	.0	.0	18	.0	9.0
-2	.0	2.0	6.5	1.0	.5	.0	.0	20	.5	9.5
-3	.0	.5	3.5	2.0	.0	.0	.0	12	.0	6.0
-4	.0	2.0	2.0	1.5	.0	.0	.0	11	.0	5.5
-5	.0	3.0	.5	1.5	.0	.0	.0	10	.0	5.0
-6	.5	.5	2.0	.0	.0	.0	.0	6	.0	3.0
-7/-8	.5	4.5	1.5	.0	.0	.0	.0	13	.5	6.0
-9/-10	.5	.0	.5	.0	.0	.0	.0	2	.0	1.0
TOTAL	4	30	59	76	23	6	2	200	4	196
PCT	2.0	15.0	29.5	38.0	11.5	3.0	1.0	100.0	2.0	98.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	1.1	.0	.0	.0	.0	2.0
1-2	.0	8.4	4.2	.0	.0	.0	12.6
3-4	.0	1.7	6.7	1.4	.0	.0	9.8
5-6	.0	.0	2.4	.8	.3	.0	3.5
7	.0	.0	.7	1.1	.8	.0	2.6
8-9	.0	.0	.0	.5	.0	.0	.5
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.5	.0	.5
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	11.2	14.0	4.0	1.6	.0	31.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	.0	.0	.0	.0	.3
1-2	.0	1.6	.1	.0	.0	.0	1.7
3-4	.0	.5	1.0	.3	.0	.0	1.8
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.3	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.3	1.5	.6	.0	.0	4.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.3	.0	.3	.0	.0	.0	.5
3-4	.0	.5	.7	.0	.0	.0	1.2
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.2	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	.5	1.0	.2	.0	.0	2.0

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.3	1.3	.6	.0	.0	.0	2.2
3-4	.0	.9	2.3	.3	.0	.0	3.5
5-6	.0	.0	1.2	.9	.1	.0	2.2
7	.0	.0	.5	.8	.1	.0	1.5
8-9	.0	.0	.0	.0	.3	.0	.3
10-11	.0	.0	.0	.0	.1	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.2	4.7	2.1	.6	.0	9.8

PERIOD: (OVER-ALL) 1963-1977

SEPTEMBER

TABLE 18 (CONT)

AREA 002R COOK STRAIT 41.4S 174.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.8	.0	.0	.0	.0	2.4
1-2	.0	2.8	2.0	.0	.0	.0	4.7
3-4	.0	.9	4.3	.2	.0	.0	5.4
5-6	.0	.0	2.5	3.0	.9	.0	6.5
7	.0	.0	1.1	3.3	1.4	.0	5.8
8-9	.0	.0	.5	.3	1.8	.0	2.6
10-11	.0	.0	.0	.3	.7	.0	.9
12	.0	.0	.0	.0	.0	.3	.3
13-16	.0	.0	.0	.5	.0	.8	1.3
17-19	.0	.0	.0	.3	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.6	10.4	7.8	4.8	1.1	30.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	.0	.0	.0	.0	.1
1-2	.0	.5	.9	.0	.0	.0	1.5
3-4	.0	1.3	1.6	.0	.0	.0	2.8
5-6	.0	.0	.6	.1	.1	.0	.7
7	.0	.0	.0	.3	.1	.0	.4
8-9	.0	.0	.3	.0	.1	.0	.3
10-11	.0	.0	.0	.0	.1	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.9	3.4	.5	.3	.0	6.1

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2
1-2	.0	1.8	.0	.0	.0	.0	1.8
3-4	.0	.2	.9	.8	.0	.0	2.0
5-6	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.0	1.2	.8	.0	.0	4.2

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.5	.3	.0	.0	.0	.9	
1-2	.0	1.2	1.6	.0	.0	.0	2.8	
3-4	.0	.0	.9	.0	.0	.0	.9	
5-6	.0	.0	1.7	.8	.3	.0	2.8	
7	.0	.0	.6	.3	.0	.0	.9	
8-9	.0	.0	.0	.3	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	1.8	5.1	1.4	.3	.0	8.5	97.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.9	4.1	.3	.0	.0	.0	9.2	
1-2	.5	17.6	9.7	.0	.0	.0	27.8	
3-4	.0	5.9	18.4	3.0	.0	.0	27.3	
5-6	.0	.0	8.9	5.7	1.6	.0	16.2	
7	.0	.0	3.0	6.2	2.4	.0	11.6	
8-9	.0	.0	.8	1.1	2.2	.0	4.1	
10-11	.0	.0	.0	.5	.8	.0	1.4	
12	.0	.0	.0	.0	.5	.3	.8	
13-16	.0	.0	.0	.5	.0	.8	1.4	
17-19	.0	.0	.0	.3	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.4	27.6	41.1	17.3	7.6	1.1	100.0	370

PERIOD: (OVER-ALL) 1962-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	8.3	13.5	10.6	8.3	1.3	2.1	1.3	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	182	5
6-7	.0	1.3	4.2	5.7	9.6	4.7	2.6	.5	1.0	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	117	7
8-9	.0	.5	1.8	.8	1.8	1.3	.3	.3	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	7
10-11	.0	2.3	.8	.5	.8	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	4
12-13	.0	.0	.8	1.0	.5	.3	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	6
>13	.0	.0	.0	.5	.3	.3	.0	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	9
INDET	1.8	.3	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	7
TOTAL	10	49	87	75	82	31	20	10	17	3	0	1	0	0	0	0	0	0	0	385	6
PCT	2.6	12.7	22.6	19.5	21.3	8.1	5.2	2.6	4.4	.8	.0	.3	.0	.0	.0	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST SNOW BLWG	NO SIG WEA
N	2.4	.0	2.4	.0	.0	.0	.0	4.9	1.9	.3	1.6	.5	4.5		.0	86.6
NE	6.3	.0	5.2	.0	.0	.0	.0	11.5	.0	2.1	.0	1.0	9.4		.0	76.0
E	10.8	.0	.0	.0	.0	.0	.0	10.8	.0	.0	.0	.0	.0		.0	89.2
SE	6.8	.5	.0	.0	.0	.0	.0	7.3	3.9	.0	3.4	.0	.0		1.9	83.5
S	7.3	2.6	1.0	.0	.0	.0	.0	11.1	7.8	.0	1.3	.0	.0		.0	79.9
SW	12.0	.0	.0	.0	.0	.0	5.3	17.3	1.3	.0	.0	.0	.0		.0	81.3
W	.0	.0	.0	.0	.0	.0	.0	.0	3.9	.0	5.3	.0	.0		.0	90.8
NW	1.4	1.4	.4	.0	.0	.0	.0	3.2	3.4	.0	1.4	.0	.4		.0	91.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	12.5	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0		.0	87.5
TOT PCT	4.5	.9	1.6	.0	.0	.0	.2	7.2	3.6	.2	1.6	.2	2.0		.2	84.9
TOT OBS:	444															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST SNOW BLWG	NO SIG WEA
00&03	3.3	1.2	1.2	.0	.0	.0	.0	5.8	2.1	.0	1.2	.4	.8		.0	89.6
06&09	10.3	1.5	2.9	.0	.0	.0	.0	14.7	4.4	.0	2.9	.0	4.4		.0	73.5
12&15	2.5	.0	.0	.0	.0	.0	1.3	3.8	5.1	1.3	2.5	.0	1.3		.0	86.1
18&21	3.7	1.2	2.5	.0	.0	.0	.0	7.4	4.9	.0	1.2	.0	3.7		1.2	81.5
TOT PCT	4.3	1.1	1.5	.0	.0	.0	.2	7.0	3.4	.2	1.7	.2	1.9		.2	85.3
TOT OBS:	469															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.0	6.5	15.3	7.5	2.0	.0		32.4	18.1	28.6	30.5	39.3	28.5	30.8	41.4	38.5	37.7
NE	.0	1.7	2.8	1.0	.1	.0		5.6	15.8	5.7	6.0	10.7	2.8	9.6	3.9	.0	2.7
E	.0	1.5	.9	.0	.0	.0		2.5	9.6	.8	3.8	3.0	4.3	.0	.0	.0	3.6
SE	.5	3.0	5.8	1.9	.4	.0		11.6	15.8	13.0	14.8	8.6	16.0	7.1	6.3	13.5	8.6
S	.3	5.4	8.4	5.3	1.9	.2		21.5	18.9	22.9	19.3	26.4	19.4	15.0	9.4	28.1	32.3
SW	.2	1.2	.7	1.5	.4	.2		4.2	20.7	4.6	2.1	.0	6.3	7.9	1.6	4.2	6.4
W	.2	1.0	2.3	.5	.0	.0		4.1	14.2	6.7	.7	5.0	4.9	7.5	1.6	.0	2.7
NW	.0	2.0	9.6	4.1	.6	.0		16.3	18.8	14.9	21.9	5.0	11.1	22.1	32.8	11.5	5.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.7							1.7	.0	3.1	1.0	.0	2.8	.0	3.1	4.2	.0
TOT OBS	19	107	219	105	26	2	478		17.4	131	105	35	36	60	32	24	55
TOT PCT	4.0	22.4	45.8	22.0	5.4	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.7	11.4	13.3	4.8	.2		32.4	18.1	29.3	33.8	34.5	38.0
NE	.8	2.4	2.1	.4	.0		5.6	15.8	5.8	6.7	7.6	1.9
E	.5	2.0	.0	.0	.0		2.5	9.6	2.1	6.7	.0	2.5
SE	2.3	4.1	3.7	1.5	.0		11.6	15.8	13.8	12.3	6.8	10.1
S	1.7	8.4	6.9	4.0	.6		21.5	18.9	21.3	22.9	13.0	31.0
SW	.4	1.7	1.0	.9	.2		4.2	20.7	3.5	3.2	5.7	5.7
W	.6	2.3	.9	.2	.0		4.1	14.2	4.0	4.9	5.4	1.9
NW	.2	6.3	8.2	1.5	.2		16.3	18.8	18.0	8.1	25.8	7.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.7						1.7	.0	2.1	1.4	1.1	1.3
TOT OBS	92	184	172	64	6	478		17.4	236	71	92	79
TOT PCT	10.9	38.5	36.0	13.4	1.3		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.1	2.1	22.9	49.6	18.2	4.2	.8	17.0	100.0	236
06&09	1.4	4.2	23.9	40.8	26.8	2.8	.0	16.9	100.0	71
12&15	1.1	3.3	25.0	43.5	21.7	5.4	.0	16.6	100.0	92
18&21	1.3	.0	16.5	41.8	29.1	11.4	.0	20.5	100.0	79
TOT	8	11	107	219	105	26	2	17.4		478
PCT	1.7	2.3	22.4	45.8	22.0	5.4	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	13.0	5.3	13.4	5.1		4.2
NE	2.0	1.7	1.1	1.3		4.2
E	1.0	.0	.7	.4		4.0
SE	2.0	2.8	1.6	1.8		4.4
S	5.1	3.6	4.9	10.9		5.5
SW	1.0	.5	1.1	2.2		5.6
W	2.0	1.4	.3	.0		2.2
NW	5.2	2.2	3.8	.9		3.7
VAR	.0	.0	.0	.0		.0
CALM	.7	.0	.4	.4		3.7
TOT OBS	88	48	75	63	274	4.5
TOT PCT	32.1	17.5	27.4	23.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.4	.0	.4	2.4	3.8	1.4	.0	.4	.4	.4	27.5	
NE	.0	.0	.4	.8	.1	.0	.0	.0	.0	.0	4.8	
E	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	1.4	
SE	.0	.0	.2	.8	.7	.8	.0	.1	.0	.0	5.7	
S	.0	.0	1.6	2.1	5.6	2.4	1.1	.3	.0	.0	11.6	
SW	.0	.4	.0	.7	.6	.1	.4	.4	.0	.0	2.2	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	
NW	.0	.0	.0	.5	.5	1.2	.4	.0	.0	.0	9.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.4	.0	.4	.0	.0	.0	.0	.7	
TOT OBS	1	1	7	21	31	17	5	3	2	2	184	274
TOT PCT	.4	.4	2.6	7.7	11.3	6.2	1.8	1.1	.7	.7	67.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
= OR >5000	2.1	2.5	2.5	2.5	2.5	2.5	2.5	2.5
= OR >3500	2.8	4.6	4.6	4.6	4.6	4.6	4.6	4.6
= OR >2000	7.8	10.6	10.6	10.6	10.6	10.6	10.6	10.6
= OR >1000	16.3	21.9	21.9	21.9	21.9	21.9	21.9	21.9
= OR >600	19.4	29.0	29.7	29.7	29.7	29.7	29.7	29.7
= OR >300	19.8	30.0	31.8	31.8	32.2	32.2	32.2	32.2
= OR >150	19.8	30.0	31.8	32.2	32.5	32.5	32.5	32.5
= OR > 0	20.1	30.4	32.2	32.5	32.9	32.9	32.9	32.9
TOTAL	57	86	91	92	93	93	93	93

TOTAL NUMBER OF OBS: 283

PCT FREQ NH <5/8: 67.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
9.6	21.3	14.4	14.1	6.2	5.2	4.5	6.5	18.2	.0	291

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.5	.0	.0	.0	.0	.0	.2	.2	.0	.0	.9	
	TOT %	.5	.0	.0	.0	.0	.0	.2	.2	.0	.0	.9	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.5	
	TOT %	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.5	
1<2	PCP	.0	.0	.0	.0	.2	.2	.0	.0	.0	.2	.7	
	NO PCP	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.5	
	TOT %	.0	.0	.0	.1	.6	.2	.0	.0	.0	.2	1.1	
2<5	PCP	.0	.2	.0	.2	.4	.1	.0	.0	.0	.0	.9	
	NO PCP	.2	.0	.0	.3	.4	.2	.0	.0	.0	.0	1.1	
	TOT %	.2	.2	.0	.5	.8	.3	.0	.0	.0	.0	2.0	
5<10	PCP	1.2	.3	.2	.5	.7	.5	.0	.5	.0	.0	3.8	
	NO PCP	5.4	1.4	.0	1.6	3.3	.6	.5	3.3	.0	.0	16.0	
	TOT %	6.6	1.7	.2	2.0	4.0	1.1	.5	3.7	.0	.0	19.9	
10+	PCP	.3	.1	.0	.2	1.2	.0	.0	.1	.0	.0	1.8	
	NO PCP	24.6	3.4	1.9	8.6	15.6	2.7	3.6	11.9	.0	1.6	73.8	
	TOT %	24.9	3.5	1.9	8.8	16.8	2.7	3.6	11.9	.0	1.6	75.6	
	TOT OBS												443
	TOT PCT	32.2	5.4	2.1	11.6	22.5	4.2	4.3	15.9	.0	1.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.4	.0	.0	.0	.0	.0	.2	.0	.0		.7	
	11-21	.2	.0	.0	.0	.0	.0	.0	.2	.0		.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.7	.0	.0	.0	.0	.0	.2	.2	.0	.0	1.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.1	.2	.0	.0	.0	.0		.2	
	TOT %	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.1	.1	.0		.2	
	22+	.0	.0	.0	.1	.3	.2	.0	.0	.0		.7	
	TOT %	.0	.0	.0	.1	.6	.2	.1	.1	.0	.2	1.3	
2<5	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.3	.4	.0	.0	.0	.0		.7	
	11-21	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.2	.0	.0	.0	.4	.3	.0	.0	.0		.9	
	TOT %	.2	.2	.0	.5	.8	.3	.0	.0	.0	.0	2.0	
5<10	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	4-10	.9	.4	.0	.2	.0	.0	.0	.0	.0		1.6	
	11-21	2.7	.6	.2	.6	1.4	.1	.5	1.9	.0		8.1	
	22+	2.9	.7	.0	1.1	2.5	1.0	.0	1.8	.0		9.9	
	TOT %	6.6	1.7	.2	2.0	4.0	1.1	.5	3.7	.0	.0	19.7	
10+	0-3	1.1	.0	.0	.2	.2	.0	.2	.0	.0	1.6	3.4	
	4-10	5.4	1.1	1.2	2.3	4.9	1.3	.9	2.1	.0		19.3	
	11-21	12.2	1.9	.6	5.0	7.2	.6	1.8	7.4	.0		36.8	
	22+	6.1	.4	.0	1.2	4.4	.8	.6	2.3	.0		15.9	
	TOT %	24.8	3.5	1.8	8.7	16.8	2.7	3.5	11.8	.0	1.6	75.3	
	TOT OBS												446
	TOT PCT	32.2	5.4	2.1	11.5	22.4	4.3	4.4	15.9	.0	1.8	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	1.0	1.9	5.8	11.5	4.8	.0	1.0	1.9	.0	27.9	72.1	104
06&09	.0	.0	2.2	11.1	13.3	2.2	.0	.0	.0	2.2	31.1	68.9	45
12&15	1.8	.0	.0	10.5	5.3	8.8	5.3	1.8	.0	.0	33.3	66.7	57
18&21	.0	.0	5.1	6.3	15.2	7.6	3.8	1.3	.0	1.3	40.5	59.5	79
TOT	1	1	7	22	33	17	6	3	2	2	94	191	285
PCT	.4	.4	2.5	7.7	11.6	6.0	2.1	1.1	.7	.7	33.0	67.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.4	.4	1.3	1.3	21.3	75.4	240
06&09	2.9	1.4	.0	5.8	17.4	72.5	69
12&15	2.5	.0	2.5	1.3	22.5	71.3	80
18&21	.0	1.2	1.2	2.4	14.6	80.5	82
TOT	5	3	6	10	93	354	471
PCT	1.1	.6	1.3	2.1	19.7	75.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	2.9	8.7	18.4	72.8	103
06&09	.0	6.8	20.5	18.2	61.4	44
12&15	1.8	1.8	12.3	21.1	66.7	57
18&21	.0	5.1	11.4	29.1	59.5	79
TOT	1	11	34	62	187	283
PCT	.4	3.9	12.0	21.9	66.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.4	.0	.0	.0	.0	1	.4
65/69	.0	.0	.0	.4	.0	.4	.0	.0	2	.8
60/64	.0	.0	.0	.4	3.9	1.6	1.9	2.3	26	10.1
55/59	.0	.4	.4	.0	5.4	9.3	12.8	9.7	98	38.1
50/54	.0	.0	.0	1.2	2.3	7.8	15.2	14.4	105	40.9
45/49	.0	.0	.0	.0	.8	1.9	3.9	1.9	22	8.6
40/44	.0	.0	.0	.0	.0	.0	.0	1.2	3	1.2
TOTAL	0	1	1	4	32	54	87	76	257	100.0
PCT	.0	.4	.4	2.3	12.5	21.0	33.9	29.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.4	.0	.0
.4	.0	.0	.0	.0	.0	.4	.0	.0	.0
6.4	.7	.0	.0	.0	.0	1.1	1.9	.0	.0
21.0	3.2	.8	2.4	2.1	.5	1.4	6.7	.0	.0
8.9	1.5	.8	7.4	14.8	3.1	.4	3.6	.0	.4
.0	.0	.0	.7	5.3	1.8	.4	.4	.0	.0
.0	.0	.0	.1	.7	.4	.0	.0	.0	.0
36.8	5.4	1.6	10.6	22.9	5.8	3.6	13.0	.0	.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	68	66	57	50	46	45	57.4	249
06&09	65	64	63	54	46	39	39	54.5	72
12&15	63	62	59	54	47	41	41	53.4	97
18&21	64	63	61	54	48	43	43	53.6	83
TOT	73	68	64	55	48	45	39	55.6	501

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.4	20.5	34.6	25.6	12.8	77	78
06&09	.0	5.8	13.5	13.5	28.8	38.5	83	52
12&15	.0	.0	9.7	18.1	41.7	30.6	85	72
18&21	.0	.0	6.2	12.3	38.5	43.1	87	65
TOT	0	8	34	55	90	80	83	267

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PERIOD: (PRIMARY) 1967-1977
(OVER-ALL) 1868-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.5	.0	.0	.0	.5	2	.0	1.1
11/13	.0	.0	.0	.0	.5	.5	.0	.0	.0	2	.0	1.1
9/10	.0	.0	.0	.0	.5	1.1	.0	.0	.0	3	.0	1.6
7/8	.0	.0	.0	.0	3.3	1.6	.0	.0	.0	9	.5	4.3
6	.0	.0	.0	.0	1.1	1.6	.0	.0	.0	5	.0	2.7
5	.0	.0	1.1	2.2	7.1	4.3	1.1	.0	.0	29	.0	15.8
4	.0	.0	.0	2.2	4.3	.5	.0	.0	.0	13	.0	7.1
3	.0	.0	.5	1.1	2.7	.0	.0	.0	.0	8	.0	4.3
2	.0	.0	1.1	6.5	4.9	.5	.0	.0	.0	24	.5	12.5
1	.0	.0	.5	5.4	.5	.0	.0	.0	.0	12	.5	6.0
0	.0	1.1	3.8	9.8	3.3	.5	.0	.0	.0	34	.5	17.9
-1	.0	.0	1.6	3.8	.5	.0	.0	.0	.0	11	.0	6.0
-2	.0	.5	2.7	2.7	.0	.0	.0	.0	.0	11	.0	6.0
-3	.0	.5	2.2	.0	.0	.0	.0	.0	.0	5	.0	2.7
-4	.0	.0	1.1	.5	.0	.0	.0	.0	.0	3	.0	1.6
-5	.0	.5	1.1	.0	.0	.0	.0	.0	.0	3	.0	1.6
-6	.0	.0	1.1	.0	.0	.0	.0	.0	.0	2	.0	1.1
-7/-8	.5	2.2	1.6	.0	.0	.0	.0	.0	.0	8	.0	4.3
TOTAL	1		34		54		2		1		4	180
		9		63		20		0		184		
PCT	.5	4.9	18.5	34.2	29.3	10.9	1.1	.0	.5	100.0	2.2	97.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.3	.0	.0	.0	.0	.9
1-2	.0	5.5	4.7	.0	.0	.0	10.2
3-4	.0	1.2	7.4	2.3	.0	.0	11.0
5-6	.0	.6	2.3	4.1	.8	.0	7.8
7	.0	.0	.6	1.4	.0	.0	2.0
8-9	.0	.2	.0	.2	1.2	.0	1.7
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	7.8	15.1	8.3	2.0	.0	33.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.0	.4	.0	.0	.0	1.4
3-4	.0	.3	1.8	.9	.0	.0	3.0
5-6	.0	.0	.3	.2	.0	.0	.5
7	.0	.0	.0	.3	.0	.0	.3
8-9	.0	.1	.0	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	2.5	1.4	.0	.0	5.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.6	.5	.0	.0	.0	1.1
3-4	.0	.9	.0	.0	.0	.0	.9
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.5	.5	.0	.0	.0	2.0

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.2	.0	.0	.0	.0	.5
1-2	.3	1.1	2.0	.0	.0	.0	3.4
3-4	.0	.9	1.4	.4	.0	.0	2.7
5-6	.0	.0	1.7	1.1	.3	.0	3.2
7	.0	.0	.0	.8	.0	.0	.8
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.1	.0	.1
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.2	3.2	2.6	.4	.0	11.0

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.0	.0	.0	.0	.0	1.3
1-2	.0	4.8	3.2	.0	.0	.0	8.0
3-4	.0	.6	3.0	1.4	.0	.0	5.0
5-6	.0	.0	2.0	1.2	.3	.0	3.5
7	.0	.0	.6	1.0	.3	.0	1.9
8-9	.0	.0	.2	.8	.3	.0	1.4
10-11	.0	.0	.0	.0	.6	.3	.9
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.2	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	6.4	9.1	3.0	1.7	.3	22.7

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1
1-2	.0	.7	.3	.0	.0	.0	1.0
3-4	.0	.6	.1	.6	.0	.0	1.3
5-6	.0	.0	.5	.7	.3	.0	1.4
7	.0	.0	.0	.3	.0	.0	.3
8-9	.0	.0	.0	.1	.0	.3	.4
10-11	.0	.0	.0	.0	.3	.0	.3
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	.8	1.7	.6	.3	4.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.3	1.2	1.1	.0	.0	.0	2.6
3-4	.0	.0	.5	.2	.0	.0	.8
5-6	.0	.0	.5	.3	.0	.0	.8
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.2	2.2	.5	.0	.0	4.2

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.6	.0	.0	.0	.0	.6	
1-2	.0	1.7	5.2	.0	.0	.0	6.8	
3-4	.0	.3	1.4	.8	.0	.0	2.4	
5-6	.0	.0	1.7	.8	.2	.0	2.6	
7	.0	.0	.9	.7	.6	.0	2.2	
8-9	.0	.0	.0	.1	.0	.0	.1	
10-11	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.6	9.1	2.4	.8	.0	14.8	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.0	2.1	.0	.0	.0	.0	5.1	
1-2	.6	16.7	17.3	.0	.0	.0	34.5	
3-4	.0	5.1	15.5	6.5	.0	.0	27.1	
5-6	.0	.6	8.9	8.3	1.8	.0	19.6	
7	.0	.0	2.1	4.5	.9	.0	7.4	
8-9	.0	.3	.3	1.2	1.5	.3	3.6	
10-11	.0	.0	.0	.6	.9	.3	1.8	
12	.0	.0	.0	.3	.0	.0	.3	
13-16	.0	.0	.0	.3	.0	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.3	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								336
TOT PCT	3.6	24.7	44.0	21.7	5.4	.6	100.0	

PERIOD: (OVER-ALL) 1961-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	12.0	13.4	11.1	8.9	2.0	2.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	169	4
6-7	.0	.0	4.0	6.0	8.0	4.0	2.0	.6	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	84	7
8-9	.0	.0	3.4	1.1	1.7	.6	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	6
10-11	.0	2.6	.6	.9	1.1	.6	1.1	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	26	7
12-13	.0	.0	4.0	.9	.9	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	6
>13	.0	.0	.0	1.7	1.1	.0	.6	.3	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	13	9
INDET	.6	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	3
TOTAL	3	31	89	78	62	26	25	7	5	1	1	1	0	1	0	0	0	0	0	355	5
PCT	.9	14.6	25.4	22.3	17.7	7.4	7.1	2.0	1.4	.3	.3	.3	.0	.3	.0	.0	.0	.0	.0	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1867-1977

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41.4S 174.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	3.7	.5	1.2	.0	.0	.0	.0	5.5	3.3	.0	.3	.0	2.2		.0	88.8
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.4		.0	91.6
E	8.7	.0	.0	.0	.0	.0	.0	8.7	.0	.0	.0	.0	.0		.0	91.3
SE	13.9	2.2	2.2	.0	.0	.0	.0	18.2	1.9	.0	.0	.0	.0		.0	79.9
S	7.4	2.2	3.9	.0	.0	.0	.0	13.6	4.9	.9	1.8	.0	.7		.9	77.5
SW	14.5	.0	.0	.0	.0	.0	.0	14.5	6.0	.0	.0	.0	1.2		.0	78.3
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9	.0	.0	.0		.0	93.1
NW	1.3	.0	.8	.0	.0	.0	.0	2.1	2.1	1.1	.5	.0	.0		.0	94.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0	.0		.0	91.7
TOT PCT	5.4	.9	1.6	.0	.0	.0	.0	7.9	2.9	.5	.7	.0	1.4		.2	86.3
TOT OBS:	554															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.6	.4	2.3	.0	.0	.0	.0	7.3	2.7	.0	1.2	.0	2.7		.4	85.7
06&09	5.3	2.1	2.1	.0	.0	.0	.0	9.6	4.3	1.1	.0	.0	1.1		.0	84.0
12&15	7.6	.8	.0	.0	.0	.0	.0	8.4	1.7	1.7	.8	.0	.0		.0	87.4
18&21	5.5	.9	2.7	.0	.0	.0	.0	9.1	2.7	.0	.0	.0	.9		.0	87.3
TOT PCT	5.5	.9	1.9	.0	.0	.0	.0	8.2	2.7	.5	.7	.0	1.5		.2	86.1
TOT OBS:	582															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	6.1	13.5	8.4	4.7	.3		33.5	20.7	38.5	36.5	32.4	23.1	34.9	32.2	27.2	32.4
NE	*	2.2	2.7	.4	.2	.0		5.6	13.8	9.2	7.6	12.5	4.0	8.0	4.3	.0	2.4
E	.3	1.3	.5	.0	.0	.0		1.9	8.7	1.9	.8	2.9	1.2	3.1	.0	5.9	1.8
SE	.2	3.3	5.7	2.6	1.0	.0		12.7	16.9	15.7	11.7	10.3	12.3	5.1	10.6	16.2	17.9
S	.4	4.7	9.9	4.5	1.5	.2		21.1	17.5	21.3	17.8	22.8	28.1	17.0	20.7	24.3	21.7
SW	.2	2.0	1.1	.2	*	.0		3.5	11.0	2.6	1.8	2.2	2.7	6.5	6.7	3.7	4.4
W	.0	1.0	.8	.4	.1	.2		2.6	17.9	.6	1.2	2.9	4.9	1.7	4.3	.0	6.5
NW	.0	2.6	6.5	6.0	1.5	.7		17.3	22.5	12.8	21.1	14.0	24.1	20.2	21.2	14.0	10.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.8							1.8	.0	1.3	1.6	.0	.0	3.4	.0	8.8	2.4
TOT OBS	23	152	266	147	58	9	655		18.4	154	128	34	81	88	52	34	84
TOT PCT	3.5	23.2	40.6	22.4	8.9	1.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.2	11.1	11.1	8.0	1.1		33.5	20.7	37.6	25.9	33.9	30.9
NE	.5	3.5	1.3	.2	.0		5.6	13.8	6.3	6.5	6.6	1.7
E	.5	1.4	.0	.0	.0		1.9	8.7	1.4	1.7	2.0	3.0
SE	1.5	6.0	3.4	1.8	.0		12.7	16.9	13.9	11.7	7.1	17.4
S	2.3	8.4	7.6	2.6	.2		21.1	17.5	19.7	26.5	18.4	22.5
SW	1.0	1.9	.6	.2	.0		3.5	11.0	2.2	2.2	6.6	4.4
W	.4	1.0	.8	.0	.3		2.6	17.9	.9	4.3	2.7	4.7
NW	.3	4.8	6.8	4.1	1.2		17.3	22.5	16.6	21.1	20.5	11.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.8						1.8	.0	1.4	.0	2.1	4.2
TOT OBS	69	290	207	111	18	655		18.4	282	115	140	118
TOT PCT	10.5	38.2	31.6	16.9	2.7		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.4	1.4	18.8	42.9	29.4	11.0	1.1	19.5	100.0	282
06&09	.0	.9	25.2	41.7	26.3	7.0	.9	18.4	100.0	115
12&15	2.1	2.1	28.6	38.6	20.0	6.4	2.1	17.1	100.0	140
18&21	4.2	2.5	23.4	36.4	21.2	8.5	1.7	17.6	100.0	118
TOT	12	11	152	266	147	58	9	18.4		655
PCT	1.8	1.7	23.2	40.6	22.4	8.9	1.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	11.9	7.0	8.0	5.4		3.9
NE	3.7	2.5	1.1	.6		2.8
E	1.0	.6	.6	1.0		4.4
SE	2.5	2.5	5.2	2.1		5.1
S	4.3	2.5	6.7	9.0		5.7
SW	1.6	.8	.5	.9		3.7
W	1.7	.2	.3	.0		1.3
NW	4.5	3.5	4.2	1.2		3.8
VAR	.0	.0	.0	.0		.0
CALM	1.6	.0	.3	.9		2.5
TOT OBS	103	62	85	65	315	4.3
TOT PCT	32.7	19.7	27.0	20.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.6	1.7	4.0	.6	.9	.0	.0	.0	24.6	
NE	.0	.3	.3	.6	.0	.0	.0	.0	.0	.0	6.8	
E	.0	.0	.0	.2	.0	.0	.0	.0	.3	.0	2.7	
SE	.0	.0	.0	1.0	3.3	1.1	.0	.0	.3	1.0	5.6	
S	.6	.0	.3	2.1	7.1	2.3	.6	.0	.3	.0	9.2	
SW	.1	.0	.0	.7	.1	.4	.0	.0	.0	.0	2.5	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	
NW	.3	.0	.4	.0	1.3	.0	.1	.0	.0	.0	11.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	
TOT OBS	3	1	5	20	50	14	5	0	3	3	211	315
TOT PCT	1.0	.3	1.6	6.3	15.9	4.4	1.6	.0	1.0	1.0	67.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	1.2	1.2	1.5	1.5	1.8	1.8	1.8	1.8
* OR >5000	1.2	1.2	1.5	1.5	1.8	1.8	1.8	1.8
* OR >3500	2.4	3.1	3.4	3.4	3.7	3.7	3.7	3.7
* OR >2000	6.1	7.0	7.3	7.3	7.6	7.6	7.6	7.6
* OR >1000	15.3	22.0	22.6	22.6	22.9	22.9	22.9	22.9
* OR >600	17.1	26.0	28.7	28.7	29.1	29.1	29.1	29.1
* OR >300	17.4	26.6	30.3	30.3	30.6	30.6	30.6	30.6
* OR >150	17.7	26.9	30.6	30.6	30.9	30.9	30.9	30.9
* OR > 0	18.3	27.8	31.5	31.8	32.1	32.1	32.1	32.1
TOTAL	60	91	103	104	105	105	105	105

TOTAL NUMBER OF OBS: 327 PCT FREQ NH <5/8: 67.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
12.9	24.4	9.2	14.4	5.2	4.6	4.6	7.9	16.4	.9	348

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1/2<1	NO PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.4	
	PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	NO PCP	.2	.0	.0	.0	.2	.0	.0	.0	.0	.2	.5	
	TOT %	.4	.0	.0	.0	.2	.0	.0	.0	.0	.2	.7	
	PCP	1.0	.0	.2	.2	.5	.2	.0	.1	.0	.0	2.2	
2<5	NO PCP	.4	.0	.0	.0	.4	.2	.0	.5	.0	.0	1.4	
	TOT %	1.4	.0	.2	.2	.9	.4	.0	.6	.0	.0	3.6	
	PCP	.5	.0	.0	1.9	1.9	.3	.0	.3	.0	.0	4.7	
5<10	NO PCP	7.9	.5	.3	2.7	6.0	.3	.7	5.7	.0	.0	24.1	
	TOT %	8.4	.5	.3	4.5	7.8	.6	.7	6.0	.0	.0	28.8	
	PCP	.2	.0	.0	.2	.3	.1	.0	.0	.0	.0	.7	
10+	NO PCP	22.8	6.0	1.6	7.5	11.0	2.7	1.9	10.4	.0	2.0	65.8	
	TOT %	23.0	6.0	1.6	7.6	11.3	2.8	1.9	10.4	.0	2.0	66.5	
	TOT OBS												553
	TOT PCT	33.0	6.5	2.1	12.4	20.5	3.8	2.6	17.0	.0	2.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	TOT %	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.4	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.4	.0	.0	.0	.3	.1	.0	.0	.0		.7	
	22+	.1	.0	.0	.0	.0	.0	.0	.1	.0		.2	
	TOT %	.4	.0	.0	.0	.3	.1	.0	.1	.0	.2	1.1	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	4-10	.0	.0	.0	.2	.0	.0	.0	.2	.0		.5	
	11-21	.4	.0	.0	.2	.5	.2	.0	.0	.0		1.3	
	22+	1.0	.0	.0	*	.5	.0	.0	.4	.0		2.0	
	TOT %	1.3	.0	.2	.2	1.0	.4	.0	.6	.0	.0	3.8	
	0-3	.1	*	.2	.0	.0	.0	.0	.0	.0	.0	.4	
5<10	4-10	.8	*	.1	1.0	2.1	.4	.0	.8	.0		5.2	
	11-21	2.0	.4	.0	2.2	3.0	.1	.3	1.4	.0		9.3	
	22+	5.5	.0	.0	1.3	2.7	.1	.4	3.8	.0		13.8	
	TOT %	8.4	.4	.3	4.5	7.8	.6	.7	6.0	.0	.0	28.7	
	0-3	.5	.0	.2	.2	.5	.2	.0	.0	.0	2.0	3.6	
10+	4-10	5.5	2.5	1.0	2.0	2.8	1.8	1.1	2.0	.0		18.6	
	11-21	11.3	2.8	.4	3.2	5.6	.7	.7	4.8	.0		29.4	
	22+	5.4	.7	.0	2.2	2.3	.1	.3	3.6	.0		14.5	
	TOT %	22.8	6.0	1.6	7.6	11.2	2.8	2.0	10.3	.0	2.0	66.1	
	TOT OBS												958
	TOT PCT	32.9	6.4	2.1	12.3	20.6	3.8	2.7	17.1	.0	2.2	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	2.3	.8	3.1	7.0	14.8	1.6	.8	.0	.0	1.6	32.0	68.0	128
06&09	.0	.0	1.8	12.5	8.9	1.8	5.4	.0	1.8	.0	32.1	67.9	56
12&15	1.5	.0	.0	3.0	15.2	.0	1.5	.0	.0	.0	21.2	78.8	66
18&21	.0	.0	.0	2.3	19.5	12.6	1.1	.0	2.3	1.1	39.1	60.9	87
TOT	4	1	5	20	51	14	6	0	3	3	107	230	337
PCT	1.2	.3	1.5	5.9	15.1	4.2	1.8	.0	.9	.9	31.8	68.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.0	1.2	4.2	26.5	68.1	260
06&09	.0	1.0	1.0	5.2	27.1	65.6	96
12&15	.0	.0	1.7	1.7	35.8	60.8	120
18&21	.0	.9	.0	4.5	25.5	69.1	110
TOT	0	2	6	23	166	389	586
PCT	.0	.3	1.0	3.9	28.3	66.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	2.3	6.3	14.1	18.8	67.2	128
06&09	.0	1.9	15.4	15.4	69.2	52
12&15	1.6	1.6	4.9	18.0	77.0	61
18&21	.0	1.2	7.0	33.7	59.3	86
TOT	4	11	35	72	220	327
PCT	1.2	3.4	10.7	22.0	67.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.3	.8	.0	.0	.0	.0	4	1.0
65/69	.0	.0	.5	.8	1.3	.8	.3	.0	12	3.0
60/64	.0	.3	.8	2.0	4.1	5.1	3.0	1.3	65	16.5
55/59	.0	.0	.8	2.3	6.3	8.9	18.0	10.6	185	46.8
50/54	.0	.0	.0	1.0	4.3	4.1	8.6	6.3	96	24.3
45/49	.0	.0	.0	.0	1.5	1.3	4.6	1.0	33	8.4
TOTAL	0	1	9	25	69	79	136	76	395	100.0
PCT	.0	.3	2.3	6.3	17.5	20.0	34.4	19.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.3	.0	.0	.8	.0	.0
2.0	.2	.0	.0	.0	.3	.0	.6	.0	.0
8.5	1.6	.3	.4	.6	.6	.5	4.1	.0	.0
20.1	2.7	.8	4.7	7.2	1.2	.8	8.7	.0	.8
4.5	.4	.7	5.3	10.9	1.0	.2	1.1	.0	.3
.0	.0	.0	3.2	4.1	.8	.0	.0	.0	.3
35.1	4.9	1.7	13.5	23.0	3.9	1.5	15.2	.0	1.3

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	72	71	68	59	51	48	48	59.7	294
06&09	73	68	66	56	48	47	47	56.5	114
12&15	64	63	60	55	48	48	48	55.0	146
18&21	68	67	64	57	49	48	46	56.6	120
TOT	73	70	68	57	49	47	45	57.6	674

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	14.6	23.4	24.1	27.0	10.9	75	137
06&09	.0	7.9	23.7	19.7	31.6	17.1	77	76
12&15	.0	2.7	8.8	19.5	42.5	26.5	83	113
18&21	.0	9.6	15.7	13.3	37.3	24.1	79	83
TOT	0	37	79	81	140	78	78	409

NOVEMBER

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1867-1977

AREA 0028 COOK STRAIT
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.0	1.8	.4	6	.0	2.1
9/10	.0	.0	.0	.0	.4	.0	.4	2	.0	.7
7/8	.0	.0	.0	.4	1.8	.7	.0	8	.0	2.9
6	.0	.0	.0	.7	.7	.0	.0	4	.0	1.4
5	.0	.0	.4	2.5	2.9	.4	.0	17	.0	6.1
4	.0	.0	.0	2.1	2.1	.4	.0	13	.4	4.3
3	.0	.0	1.4	4.3	2.1	.0	.0	22	.0	7.9
2	.0	.0	2.1	7.9	1.1	.0	.0	31	.0	11.1
1	.0	.4	3.6	6.8	2.1	.0	.0	36	.0	12.9
0	.0	1.1	8.9	9.3	1.4	.4	.0	59	.4	20.7
-1	.0	.4	4.3	.7	.0	.0	.0	15	.0	5.4
-2	1.1	1.1	2.9	2.1	.0	.0	.0	20	.0	7.1
-3	.0	2.1	1.1	.0	.0	.0	.0	9	.0	3.2
-4	.0	5.0	1.1	.0	.0	.0	.0	17	.0	6.1
-5	.4	1.1	1.1	.4	.0	.0	.0	8	.0	2.9
-6	.7	2.5	.7	.0	.0	.0	.0	11	.0	3.9
-9/-10	.4	.4	.0	.0	.0	.0	.0	2	.0	.7
TOTAL	7	39	77	104	41	10	2	280	2	278
PCT	2.5	13.9	27.5	37.1	14.6	3.6	.7	100.0	.7	99.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.5	.0	.0	.0	.0	1.0
1-2	.5	5.0	6.1	.0	.0	.0	11.6
3-4	.0	1.6	6.4	3.1	.0	.0	11.2
5-6	.0	.2	3.9	3.3	.5	.0	7.9
7	.0	.0	.8	.5	.8	.0	1.8
8-9	.0	.0	.0	.0	.5	.0	.5
10-11	.0	.0	.0	.0	.8	.0	.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	7.3	17.6	6.9	2.5	.0	34.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.1	1.6	1.4	.0	.0	.0	3.0
3-4	.0	1.4	1.6	.1	.0	.0	3.2
5-6	.0	.0	1.0	.2	.3	.0	1.4
7	.0	.0	.3	.3	.0	.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.3	4.2	.7	.3	.0	8.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3
1-2	.0	1.0	.3	.0	.0	.0	1.2
3-4	.0	.5	.3	.0	.0	.0	.8
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.4	.5	.0	.0	.0	2.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.3	2.7	1.4	.0	.0	.0	4.4
3-4	.0	.3	1.0	1.4	.0	.0	2.6
5-6	.0	.0	1.0	.3	.0	.0	1.4
7	.0	.0	.0	.5	.0	.0	.5
8-9	.0	.0	.5	.6	.3	.0	1.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.3	.0	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.0	3.8	3.2	.5	.0	10.9

PERIOD: (OVER-ALL) 1963-1977 NOVEMBER AREA 0028 COOK STRAIT 41.4S 174.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.5	.0	.8	.0	.0	.0	.0	.8
1-2	.2	3.0	1.9	.0	.0	.0	5.1	.3	1.4	.0	.0	.0	.0	1.8
3-4	.0	1.1	6.0	.5	.0	.0	7.7	.0	.5	.4	.0	.0	.0	1.0
5-6	.0	.0	2.0	1.7	.3	.0	4.0	.0	.0	.1	.1	.0	.0	.1
7	.0	.0	.0	.6	1.3	.0	1.9	.0	.0	.3	.0	.1	.0	.3
8-9	.0	.0	.8	1.0	.3	.0	2.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.9	.5	.0	.3	1.0	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.4	10.9	4.4	1.8	.3	22.3	.3	2.8	.8	.1	.1	.0	4.2

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.8	.3	.0	.0	.0	1.0	.0	1.8	2.0	.0	.0	.0	3.8	
3-4	.0	.3	.5	.0	.0	.0	.8	.0	.3	2.9	1.9	.0	.0	5.1	
5-6	.0	.0	.3	.4	.0	.0	.7	.0	.1	.3	1.5	.9	.0	2.8	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0	.3	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.0	1.0	.4	.0	.0	2.5	.0	2.1	5.3	3.7	1.0	.0	12.2	97.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.6	1.9	.0	.0	.0	.0	5.5	
1-2	1.4	17.2	13.4	.0	.0	.0	32.0	
3-4	.0	6.0	19.1	7.1	.0	.0	32.2	
5-6	.0	.3	8.5	7.7	1.9	.0	18.3	
7	.0	.0	1.1	2.2	2.2	.0	5.5	
8-9	.0	.0	1.4	1.6	1.1	.0	4.1	
10-11	.0	.0	.3	.5	.8	.3	1.9	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.3	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.3	.0	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								366
TOT PCT	4.9	25.4	43.7	19.4	6.3	.3	100.0	

PERIOD: (OVER-ALL) 1949-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.3	12.6	14.4	11.9	3.9	1.3	1.8	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	185	4
6-7	.0	1.3	4.9	5.7	6.2	2.8	.8	.8	.8	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	91	6
8-9	.0	.3	1.0	2.6	2.8	1.5	.8	.8	.5	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	43	9
10-11	.0	1.8	.3	1.3	.8	.3	.8	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	22	7
12-13	.0	.0	2.8	1.6	.8	.3	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	8
>13	.0	.0	.0	1.6	.5	.5	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	7
INDET	1.3	.0	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	1
TOTAL	10	62	93	98	38	26	19	6	8	5	2	1	0	0	0	0	0	0	0	388	5
PCT	2.6	16.0	24.0	25.3	14.9	6.7	4.9	1.5	2.1	1.3	.5	.3	.0	.0	.0	.0	.0	.0	.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1926-1977
(OVER-ALL) 1884-1977

AREA 0028 COOK STRAIT
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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	NO SIG WEA
N	2.4	2.6	1.4	.0	.0	.0	.0	6.5	.5	.0	.8	.0	4.0	.0	88.2
NE	4.2	.0	.0	.0	.0	.0	.0	4.2	.0	.0	.0	.0	3.8	.0	92.0
E	.0	7.4	.0	.0	.0	.0	.0	7.4	.0	.0	.0	.0	.0	.0	92.6
SE	5.8	.0	.0	.0	.0	.0	.3	6.1	1.7	.0	4.1	.0	.0	.0	88.1
S	3.8	1.7	2.6	.0	.0	.0	.6	8.8	1.9	.9	.9	.0	.0	.0	86.0
SW	16.7	5.1	.0	.0	.0	.0	.0	21.8	5.1	.0	.0	.0	.0	.0	73.1
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.1	.0	.0	.0	90.9
NW	2.5	2.5	.0	.0	.0	.0	.0	5.0	3.4	.0	2.1	.0	2.5	.0	87.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	12.5	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0	.0	87.5
TOT PCT	3.9	1.9	1.1	.0	.0	.0	.2	7.0	1.2	.2	1.4	.0	2.1	.0	88.0
TOT OBS:	569														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	NO SIG WEA
00&03	4.1	1.1	.4	.0	.0	.0	.4	5.9	.7	.0	1.5	.0	3.3	.0	88.5
06&09	2.1	2.1	2.1	.0	.0	.0	.0	6.3	2.1	.0	.0	.0	.0	.0	91.6
12&15	2.3	3.1	2.3	.0	.0	.0	.0	7.8	2.3	.8	2.3	.0	2.3	.0	84.4
18&21	6.2	2.1	1.0	.0	.0	.0	.0	9.3	.0	.0	1.0	.0	.0	.0	89.7
TOT PCT	3.7	1.9	1.2	.0	.0	.0	.2	6.9	1.2	.2	1.4	.0	2.0	.0	88.3
TOT OBS:	590														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.4	5.6	12.9	11.5	5.9	1.0		37.2	23.0	36.8	43.0	47.0	34.5	29.6	38.8	38.5	34.9
NE	.2	3.0	3.8	1.8	.1	.0		8.9	15.1	9.5	8.3	8.3	8.3	8.0	6.9	9.4	12.3
E	.0	1.4	.6	.3	.0	.0		2.3	11.9	2.7	1.8	3.0	3.2	1.5	3.4	3.1	1.2
SE	.1	4.2	8.1	1.4	.2	.0		14.1	14.0	15.7	17.9	12.9	8.9	11.3	10.8	9.4	17.4
S	.3	7.6	7.1	3.4	1.3	.1		19.9	15.9	22.8	15.6	17.4	23.0	21.2	15.5	11.3	23.5
SW	.1	1.9	1.2	.3	.0	.0		3.5	11.6	.9	1.8	3.0	2.0	6.4	9.9	8.3	3.5
W	.3	.7	1.0	.0	.1	.0		2.1	11.6	1.2	.0	.0	3.4	2.7	8.6	2.1	2.3
NW	.1	2.4	4.1	2.8	1.3	.2		10.9	20.1	9.8	10.3	8.3	16.7	18.4	4.3	13.5	2.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.1							1.1	.0	.7	1.3	.0	.0	.9	1.7	4.2	2.3
TOT OBS	19	188	272	150	62	9	700		18.1	148	151	33	87	113	58	24	86
TOT PCT	2.7	26.9	38.9	21.4	8.9	1.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.3	9.3	12.7	10.1	2.8		37.2	23.0	40.0	37.9	32.7	35.7
NE	1.5	3.9	2.5	1.0	.0		8.9	15.1	8.9	8.3	7.6	11.8
E	.7	1.0	.6	.0	.0		2.3	11.9	2.3	3.1	2.2	1.6
SE	1.9	7.4	4.6	.2	*		14.1	14.0	16.8	10.0	11.1	15.7
S	3.8	8.6	4.8	2.4	.3		19.9	15.9	19.1	21.5	19.3	20.9
SW	1.1	1.6	.7	.1	.0		3.5	11.6	1.3	2.3	7.6	4.5
W	1.0	.6	.4	.1	.0		2.1	11.6	.6	2.5	4.7	2.0
NW	.6	4.3	3.5	1.9	.6		10.9	20.1	10.0	14.4	13.6	5.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.1						1.1	.0	1.0	.0	1.2	2.7
TOT OBS	98	256	209	111	26	700		18.1	299	120	171	110
TOT PCT	14.0	36.6	29.9	15.9	3.7		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS) 11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.0	1.7	23.1	38.8	24.7	10.0	.7	18.9	100.0	299
06&09	.0	3.3	28.3	35.0	23.3	10.0	.0	17.8	100.0	120
12&15	1.2	1.2	31.6	41.5	15.8	7.0	1.8	17.1	100.0	171
18&21	2.7	.0	28.2	39.1	19.1	7.3	3.6	18.0	100.0	110
TOT	8	11	188	272	150	62	9	18.1		700
PCT	1.1	1.6	26.9	38.9	21.4	8.9	1.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	12.9	4.8	13.6	5.6		4.2
NE	4.3	3.5	2.9	1.5		3.7
E	1.9	.3	.3	.8		3.6
SE	2.7	1.9	4.0	3.2		4.9
S	5.0	2.0	5.3	7.7		5.3
SW	.9	.8	1.1	1.0		4.9
W	.3	.5	.3	.3		4.2
NW	2.4	1.9	2.9	1.3		4.4
VAR	.0	.0	.0	.0		.0
CALM	.7	.3	.7	.0		3.2
TOT OBS	92	48	93	64	297	4.5
TOT PCT	31.0	16.2	31.3	21.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.3	.7	1.3	2.9	2.2	.0	.0	.0	.3	28.9	
NE	.0	.0	.3	.0	.3	.1	.3	.0	.0	.3	10.9	
E	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	2.9	
SE	.1	.0	.3	.8	2.2	.7	.0	.0	.0	.1	7.7	
S	.6	.0	.0	3.2	3.8	1.9	.3	.3	.0	.3	9.6	
SW	.0	.0	.0	.4	.8	.1	.0	.0	.0	.0	2.5	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	
NW	.0	.3	.0	.7	.2	.5	.0	.3	.0	.0	6.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	1.3	
TOT OBS	3	2	4	20	31	17	2	2	0	3	213	297
TOT PCT	1.0	.7	1.3	6.7	10.4	5.7	.7	.7	.0	1.0	71.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >5000	.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
* OR >3000	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
* OR >1500	1.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3
* OR >1000	6.8	8.1	8.1	8.1	8.1	8.1	8.1	8.1
* OR >600	13.0	18.2	18.2	18.6	18.6	18.6	18.6	18.6
* OR >300	15.3	24.1	24.4	25.1	25.1	25.1	25.1	25.1
* OR >150	16.3	25.1	25.7	26.4	26.4	26.4	26.4	26.4
* OR > 0	16.6	25.7	26.4	27.4	27.4	27.4	27.4	27.4
TOTAL	16.6	26.1	26.7	28.0	28.3	28.3	28.3	28.3
	51	80	82	86	87	87	87	87

TOTAL NUMBER OF OBS: 307

PCT FREQ NH <5/8: 71.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.8	25.4	15.5	17.0	5.3	3.1	4.6	4.0	17.6	.6	323

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.2	.0	.0	.2	.0	.0	.2	.0	.0	.0	.5	
	TOT %	.4	.0	.2	.2	.0	.0	.2	.0	.0	.0	.9	
1<2	PCP	.0	.0	.0	.2	.3	*	.0	.0	.0	.0	.5	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4	
	TOT %	.0	.0	.0	.2	.3	*	.0	.4	.0	.0	.9	
2<5	PCP	.4	.2	.0	.0	.2	.0	.0	.2	.0	.0	.9	
	NO PCP	.0	.0	.0	*	.3	.0	.0	.2	.0	.0	.5	
	TOT %	.4	.2	.0	*	.5	.0	.0	.4	.0	.0	1.4	
5<10	PCP	1.8	.1	.0	.6	.7	.5	.0	.4	.0	.0	4.0	
	NO PCP	10.8	1.8	.4	4.8	7.4	.9	.7	3.7	.0	.2	30.8	
	TOT %	12.7	1.9	.4	5.4	8.1	1.4	.7	4.0	.0	.2	34.8	
10+	PCP	.0	.2	.0	.0	.7	.2	.0	.0	.0	.2	1.2	
	NO PCP	23.2	8.1	1.8	7.1	11.0	1.8	1.1	5.7	.0	1.1	60.8	
	TOT %	23.2	8.3	1.8	7.1	11.7	1.9	1.1	5.7	.0	1.2	62.0	
	TOT OBS												569
	TOT PCT	36.5	10.4	2.4	12.9	20.6	3.4	1.9	10.5	.0	1.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	4-10	.0	.0	.2	.2	.0	.0	.0	.0	.0		.4	
	11-21	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.4	.0	.2	.2	.0	.0	.2	.0	.0	.0	.9	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	*	.0	.0	.0		.2	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	*	.1	.0	.0	.4	.0		.5	
	TOT %	.0	.0	.0	.2	.3	*	.0	.4	.0	.0	.9	
2<5	0-3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	11-21	.2	.0	.0	.0	.4	.0	.0	.2	.0		.7	
	22+	.2	.2	.0	*	.1	.0	.0	.0	.0		.5	
	TOT %	.4	.2	.0	*	.5	.2	.0	.4	.0	.0	1.6	
5<10	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	1.3	.4	.3	1.8	3.1	.7	.2	.6	.0		8.2	
	11-21	3.1	1.0	.0	3.0	3.0	.7	.5	1.2	.0		12.4	
	22+	8.3	.5	.1	.7	2.0	.1	.0	2.3	.0		13.8	
	TOT %	12.6	1.9	.4	5.4	8.1	1.4	.7	4.0	.0	.2	34.7	
10+	0-3	.5	.2	.0	.2	.4	.0	.0	.2	.0	1.2	2.6	
	4-10	4.4	3.2	.9	2.1	3.8	1.1	.5	1.6	.0		17.5	
	11-21	11.1	3.6	.7	3.8	4.2	.7	.4	2.6	.0		26.8	
	22+	7.2	1.5	.2	1.0	3.4	.2	.2	1.4	.0		15.1	
	TOT %	23.2	8.3	1.8	7.0	11.7	1.9	1.1	5.8	.0	1.2	62.0	
	TOT OBS												971
	TOT PCT	36.5	10.4	2.4	12.9	20.5	3.6	1.9	10.5	.0	1.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.8	.8	.8	7.7	6.9	4.6	.8	.0	.0	.0	22.3	77.7	130
06&09	.0	1.9	1.9	3.8	9.4	5.7	.0	.0	.0	.0	22.6	77.4	53
12&15	3.6	.0	.0	10.7	12.5	7.1	1.8	.0	.0	3.6	39.3	60.7	56
18&21	.0	1.4	2.7	2.7	14.9	6.8	.0	2.7	.0	1.4	32.4	67.6	74
TOT	3	3	4	20	32	18	2	2	0	3	87	226	313
PCT	1.0	1.0	1.3	6.4	10.2	5.8	.6	.6	.0	1.0	27.8	72.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.7	.4	1.5	32.2	65.2	270
06&09	.0	1.0	1.0	2.1	33.0	62.9	97
12&15	.0	1.6	1.6	.0	46.1	50.8	128
18&21	.0	.0	1.0	3.1	30.9	64.9	97
TOT	0	5	5	9	208	365	592
PCT	.0	.8	.8	1.5	35.1	61.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.8	2.3	10.0	12.3	77.7	130
06&09	.0	4.1	8.2	16.3	75.5	49
12&15	3.6	3.6	14.5	25.5	60.0	55
18&21	.0	4.1	11.0	24.7	64.4	73
TOT	3	10	33	56	218	307
PCT	1.0	3.3	10.7	18.2	71.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.4	.2	.0	.2	4	.8
65/69	.2	.0	.0	.4	1.0	4.5	2.7	1.0	48	9.9
60/64	.0	.0	.2	.2	3.1	7.4	7.2	11.0	141	29.1
55/59	.0	.2	.0	.4	3.3	7.9	21.9	13.0	226	46.7
50/54	.0	.0	.0	1.0	1.2	1.9	5.2	2.1	55	11.4
45/49	.0	.0	.0	.0	.0	1.7	.4	.0	10	2.1
TOTAL	1	1	1	10	44	114	181	132	484	100.0
PCT	.2	.2	.2	2.1	9.1	23.6	37.4	27.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.4	.2	.0	.0	.0	.0	.0	.3	.0	.0
6.1	1.0	.2	.6	.2	.1	.4	1.3	.0	.0
16.8	2.9	.4	2.5	1.7	.3	.4	3.9	.0	.4
15.3	3.4	1.2	8.0	12.1	1.5	1.3	3.7	.0	.0
.9	.5	.4	3.5	4.4	1.2	.4	.0	.0	.0
.0	.0	.0	.6	.7	.8	.0	.0	.0	.0
39.6	8.1	2.2	15.1	19.0	3.9	2.5	9.2	.0	.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	76	72	70	61	54	49	46	61.9	305
06&09	71	70	65	59	52	48	48	59.5	122
12&15	67	66	64	57	50	47	47	57.4	173
18&21	68	66	66	59	53	48	48	59.0	114
TOT	76	72	68	59	52	48	46	59.9	714

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.6	6.0	15.5	35.1	31.5	11.3	78	168
06&09	.0	.0	4.3	18.5	38.0	39.1	87	92
12&15	.0	.0	3.4	18.2	41.9	36.5	86	148
18&21	.0	2.2	11.0	18.7	38.5	29.7	84	91
TOT	1	12	45	120	185	146	83	499

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.3	.0	.3	2	.0	.6
11/13	.0	.0	.0	.0	.0	.6	.9	.0	3	.0	1.0
9/10	.0	.0	.0	.0	.0	1.9	.3	.0	7	.0	2.2
7/8	.0	.0	.0	.0	1.3	2.9	.0	.0	13	.0	4.1
6	.0	.0	.0	.0	2.2	.6	.6	.0	11	.0	3.5
5	.0	.0	.0	1.9	6.0	1.3	.0	.0	29	.0	9.2
4	.0	.0	.0	3.5	4.1	.6	.0	.0	26	.3	7.9
3	.0	.0	.0	3.8	5.4	.3	.0	.0	30	.0	9.5
2	.0	.0	.3	7.0	4.8	1.0	.0	.0	41	.0	13.0
1	.0	.0	1.3	7.6	2.2	.3	.0	.0	36	.0	11.4
0	.0	.0	2.5	7.3	2.9	.3	.0	.0	41	1.0	12.1
-1	.0	.3	5.7	2.2	1.0	.3	.0	.0	30	.3	9.2
-2	.0	.3	2.5	1.0	.0	.0	.0	.0	12	.0	3.8
-3	.0	.6	2.9	.3	.0	.0	.0	.0	12	.0	3.8
-4	.3	1.9	1.6	1.0	.0	.0	.0	.0	15	.3	4.4
-5	.3	.3	.0	.3	.0	.0	.0	.0	3	.0	1.0
-6	1.0	.0	.0	.0	.3	.0	.0	.0	4	.0	1.3
TOTAL	5	11	53	113	95	33	4	1	315	6	309
PCT	1.6	3.5	16.8	35.9	30.2	10.5	1.3	.3	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.5	.0	.0	.0	.0	.8
1-2	.2	4.6	5.5	.0	.0	.0	10.3
3-4	.0	1.0	9.8	2.0	.0	.0	12.9
5-6	.3	.9	3.9	4.1	1.4	.0	10.6
7	.0	.0	.3	2.5	.7	.0	3.5
8-9	.0	.0	.0	.7	.3	.0	1.0
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.5	.0	.0	.5
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	7.0	19.5	10.0	2.4	.0	39.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7
1-2	.4	1.7	1.7	.0	.0	.0	3.8
3-4	.0	.9	1.7	.3	.0	.0	2.9
5-6	.0	.0	1.3	1.9	.1	.0	3.3
7	.0	.0	.0	.1	.1	.0	.2
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.2	4.8	2.3	.2	.0	10.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.1	.2	.0	.0	.0	1.3
3-4	.0	.3	1.0	.0	.0	.0	1.3
5-6	.0	.0	.0	.3	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	1.2	.3	.0	.0	2.9

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	2.5	2.1	.0	.0	.0	4.7
3-4	.0	.3	3.3	.4	.0	.0	4.1
5-6	.0	.0	.0	.4	.0	.0	.9
7	.0	.0	.0	.3	.5	.1	.9
8-9	.0	.0	.0	.0	.1	.0	.1
10-11	.0	.0	.0	.0	.1	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.4	6.2	1.4	.3	.0	11.3

PERIOD: (OVER-ALL) 1963-1977 DECEMBER AREA 0028 COOK STRAIT 41.4S 174.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.3	.0	.0	.0	.6	.0	.1	.0	.0	.0	.0	.1
1-2	.6	2.7	3.1	.0	.0	.0	6.4	.0	.1	.0	.0	.0	.0	.1
3-4	.0	1.3	3.3	1.8	.0	.0	6.4	.0	.8	.7	.1	.0	.0	1.6
5-6	.0	.5	1.3	1.0	.3	.0	3.1	.0	.1	.6	.0	.0	.0	.7
7	.0	.0	.3	1.5	.2	.0	2.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.3	.7	.3	1.3	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.5	.0	.5	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.8	8.3	4.9	1.7	.3	20.6	.0	1.0	1.3	.4	.0	.0	2.7

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.3	.0	.0	.0	.0	.3	
1-2	.0	.0	.3	.0	.0	.0	.3	.0	1.3	2.4	.0	.0	.0	3.7	
3-4	.0	.2	.0	.0	.0	.0	.2	.3	.4	1.3	.3	.0	.0	2.3	
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.2	.6	.7	.0	.0	1.5	
7	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.4	.4	.0	.9	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.4	.4	.0	.3	.0	1.3	.3	2.3	4.3	1.6	.4	.0	9.0	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.7	2.6	.3	.0	.0	.0	4.7	
1-2	1.2	14.0	15.4	.0	.0	.0	30.5	
3-4	.3	5.2	21.2	4.9	.0	.0	31.7	
5-6	.3	1.7	8.4	8.4	1.7	.0	20.6	
7	.0	.0	.9	4.9	2.0	.0	7.8	
8-9	.0	.0	.0	1.2	1.2	.3	2.6	
10-11	.0	.0	.0	.6	.6	.0	1.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.3	.0	.0	.3	
17-19	.0	.0	.0	.6	.0	.0	.6	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								344
TOT PCT	3.5	23.5	46.2	20.9	5.5	.3	100.0	

PERIOD: (OVER-ALL) 1956-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.1	7.5	18.3	8.6	5.8	1.1	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	156	4
6-7	.0	.6	4.2	9.1	8.3	2.2	1.1	.8	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100	6
8-9	.0	.6	1.1	3.0	2.8	.8	1.4	.6	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	39	7
10-11	.0	1.9	1.7	.6	.0	1.4	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	5
12-13	.0	.0	5.8	.0	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	23	4
>13	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	6	15
INDET	1.1	.3	.6	1.1	.6	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	4
TOTAL	8	39	114	86	64	20	13	5	8	2	1	0	0	0	0	0	1	0	0	361	5
PCT	2.2	10.8	31.6	23.8	17.7	5.5	3.6	1.4	2.2	.6	.3	.0	.0	.0	.0	.0	.3	.0	.0	100.0	

ANNUAL

PERIOD: (PRIMARY) 1892-1978
(OVER-ALL) 1867-1978

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG RLWG	DUST SNOW	NO SIG WEA
N	4.5	2.4	2.1	.0	.0	.0	.0	8.8	2.9	.2	1.3	*	2.6	.0		84.9
NE	3.1	1.6	1.5	.0	.0	.0	.0	6.2	2.4	.2	1.4	.1	4.0	.0		85.7
E	6.3	.6	.2	.0	.0	.0	.0	7.1	1.1	.5	2.3	.0	.0	.0		89.1
SE	5.9	3.1	2.9	.0	.0	.0	.1	11.8	4.5	.0	2.0	.0	.7	.2		80.8
S	6.7	3.8	2.5	.0	.0	.0	.3	13.3	5.4	.2	1.6	.0	.7	.2		78.7
SW	8.6	1.7	1.8	.0	.0	.0	1.1	13.2	4.3	.0	1.6	.0	1.9	.0		79.2
W	1.9	.3	1.8	.0	.0	.0	.0	4.1	.8	1.9	1.2	.0	3.2	.0		98.8
NW	2.5	1.4	1.0	.0	.0	.0	.0	4.8	2.1	.7	.8	.0	1.1	.0		90.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	4.0	1.5	3.2	.0	.0	.0	.0	8.1	1.0	.0	1.2	.0	1.5	.0		88.3
TOT PCT	5.0	2.3	2.0	.0	.0	.0	.2	9.6	3.2	.3	1.4	*	1.8	.1		83.7
TOT OBS:	6403															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG RLWG	DUST SNOW	NO SIG WEA
00&03	4.6	2.0	1.7	.0	.0	.0	.2	8.4	3.5	*	1.2	*	2.1	.1		84.7
06&09	6.0	3.1	2.6	.0	.0	.0	.2	11.7	2.0	.2	1.6	.0	2.2	.0		82.5
12&15	4.3	3.5	2.1	.0	.0	.0	.3	9.9	3.1	.4	2.0	.0	.9	.0		83.3
18&21	5.2	2.2	3.2	.0	.0	.0	.1	10.7	3.4	.3	1.5	.0	1.7	.1		82.4
TOT PCT	4.9	2.5	2.2	.0	.0	.0	.2	9.6	3.2	.3	1.5	*	1.8	.1		83.8
TOT OBS:	6750															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	7.4	13.0	6.0	2.0	.1		29.3	17.4	32.5	32.8	33.6	28.0	24.6	29.1	28.0	23.7
NE	.2	2.9	2.9	.8	.1	.0		6.9	13.1	7.6	8.0	8.1	4.9	6.3	6.8	3.7	6.6
E	.2	1.1	.7	.1	.0	.0		2.1	11.2	1.3	1.7	3.0	3.2	3.2	2.2	1.9	1.6
SE	.3	3.4	5.0	1.8	.4	*		10.8	15.4	10.9	12.7	9.0	11.1	7.9	7.4	12.7	12.4
S	.6	6.9	9.5	5.7	2.9	.4		26.0	18.7	28.2	25.8	24.5	26.8	22.6	22.1	25.8	28.0
SW	.3	2.1	2.2	.9	.5	.1		6.1	15.5	5.4	2.3	4.7	4.8	9.8	6.5	8.7	9.6
W	.2	1.1	1.2	.3	*	*		2.9	12.4	2.5	1.6	3.6	2.9	3.4	4.4	4.2	3.5
NW	.2	3.0	6.1	2.8	.7	.1		12.8	17.6	9.6	12.8	10.8	13.7	17.8	15.9	12.0	11.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.1							3.1	.0	2.1	2.2	2.6	4.7	4.4	5.7	2.9	3.3
TOT OBS							7101		16.5	1746	1660	396	625	1202	436	411	825
TOT PCT	5.8	27.9	46.7	18.5	6.5	.6		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.2	11.3	10.1	4.1	.6		29.3	17.4	32.7	29.9	25.6	25.3
NE	1.3	3.6	1.6	.4	.0		6.9	13.1	7.8	6.4	6.3	5.7
E	.6	1.2	.3	*	.0		2.1	11.2	1.4	3.1	3.0	1.8
SE	1.7	4.9	3.3	.9	.1		10.8	15.4	11.7	10.4	7.9	12.8
S	3.2	9.5	7.3	3.0	.9		26.0	18.7	27.1	25.7	22.5	27.5
SW	1.1	2.7	1.4	.8	.1		6.1	15.5	4.0	4.7	9.0	8.9
W	.8	1.4	.6	.1	*		2.9	12.4	2.1	3.3	3.7	3.8
NW	1.0	5.2	4.9	1.5	.3		12.8	17.6	11.0	12.8	17.4	11.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.1						3.1	.0	2.2	3.7	4.7	3.0
TOT OBS						7101		16.5	3206	1021	1638	1236
TOT PCT	15.9	39.9	29.4	12.9	1.9		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.2	2.4	27.2	42.6	17.7	7.1	.8	16.9	100.0	3206
06&09	3.7	3.0	30.8	37.9	18.8	5.7	.1	15.8	100.0	1021
12&15	4.7	4.0	28.0	39.0	18.6	5.2	.6	15.6	100.0	1638
18&21	3.0	1.6	28.1	39.1	20.2	7.4	.6	17.1	100.0	1236
TOT								16.5		7101
PCT	3.1	2.7	27.9	40.7	18.5	6.5	.6		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	9.8	5.3	9.1	4.9		4.2
NE	2.8	1.3	2.2	1.2		4.2
E	.9	.4	.5	.6		3.7
SE	1.9	1.5	4.0	3.2		5.4
S	5.3	3.8	8.5	9.2		5.4
SW	2.2	1.4	2.2	1.8		4.5
W	1.2	.6	.7	.9		3.5
NW	4.2	2.1	3.8	.9		3.9
VAR	.0	.0	.0	.0		.0
CALM	1.3	.2	.6	.2		2.9
TOT OBS					9233	4.6
TOT PCT	29.7	16.5	31.6	22.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.1	.3	1.6	3.0	1.7	.3	.1	*	.1	21.6	
NE	.1	*	.2	.3	.5	.1	.2	.1	*	.1	5.8	
E	.0	.0	*	.1	.3	.2	.0	.1	.1	*	1.6	
SE	.1	.1	.2	1.0	2.3	1.0	.3	*	*	.1	5.6	
S	.3	.2	.7	3.4	5.4	2.6	.9	.1	*	*	13.1	
SW	.2	*	.2	.6	1.0	.8	*	.1	*	.0	4.6	
W	*	.0	.0	*	.3	.1	*	*	.0	*	2.2	
NW	*	*	.2	.5	.7	.6	.2	.1	.0	.1	8.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	*	.1	.1	.2	.1	.0	.0	.0	1.8	
TOT OBS												3233
TOT PCT	1.0	.5	1.8	7.4	13.6	7.2	2.1	.7	.2	.5	65.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.6	.7	.7	.7	.7	.7	.7	.7
* OR >5000	1.1	1.3	1.3	1.3	1.4	1.4	1.4	1.4
* OR >3500	2.6	3.3	3.4	3.4	3.5	3.5	3.5	3.5
* OR >2000	8.5	10.2	10.5	10.5	10.6	10.6	10.6	10.6
* OR >1000	17.9	23.1	24.0	24.0	24.0	24.0	24.1	24.1
* OR >600	21.1	29.2	31.1	31.3	31.3	31.3	31.4	31.4
* OR >300	21.5	30.2	32.6	32.9	33.0	33.0	33.1	33.1
* OR >150	21.8	30.6	33.1	33.4	33.6	33.6	33.7	33.7
* OR > 0	22.0	31.0	33.7	34.2	34.4	34.4	34.5	34.6

TOTAL NUMBER OF OBS: 3406 PCT FREQ NH <5/8: 65.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.1	21.3	11.6	15.4	5.6	4.9	6.1	7.2	17.1 .6	3647

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	*	*	*	.0	.0	.0	*	.1	
	NO PCP	.1	*	.0	*	*	*	*	*	.0	.0	.2	
	TOT %	.1	*	.0	*	.1	*	*	*	.0	*	.3	
1/2<1	PCP	.2	.0	*	.1	.4	.1	.0	.0	.0	.1	.8	
	NO PCP	.1	*	*	.1	.2	.1	*	*	.0	.0	.6	
	TOT %	.3	*	*	.2	.6	.1	*	*	.0	.1	1.4	
1<2	PCP	.1	.0	.0	*	.1	*	*	*	.0	*	.3	
	NO PCP	.1	*	.0	*	.1	*	*	.1	.0	*	.3	
	TOT %	.2	*	.0	.1	.2	*	*	.1	.0	*	.6	
2<5	PCP	.5	.1	*	.2	.5	.2	*	.1	.0	.0	1.6	
	NO PCP	.3	.1	*	.2	.5	.1	*	.1	.0	*	1.3	
	TOT %	.7	.1	*	.4	1.0	.3	*	.3	.0	*	2.9	
5<10	PCP	1.4	.2	*	.6	2.1	.4	*	.4	.0	.1	5.2	
	NO PCP	5.3	1.4	.3	2.2	5.6	.9	.4	2.6	.0	.7	19.3	
	TOT %	6.6	1.6	.3	2.8	7.6	1.2	.5	2.9	.0	.9	24.5	
10+	PCP	.4	.1	*	.2	.5	.2	*	.1	.0	.1	1.6	
	NO PCP	21.0	5.3	1.6	7.0	16.0	4.3	2.3	9.3	.0	2.0	68.7	
	TOT %	21.3	5.4	1.6	7.2	16.5	4.5	2.3	9.3	.0	2.0	70.3	
	TOT OBS												6398
	TOT PCT	29.2	7.2	2.0	10.7	26.1	6.2	2.9	12.7	.0	3.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	*	.0	.0	.0	.0	*	*	
	4-10	.1	*	.0	*	.0	*	*	.0	.0		.1	
	11-21	*	.0	.0	*	.0	*	.0	*	.0		.1	
	22+	*	.0	.0	.0	*	*	.0	.0	.0		.1	
	TOT %	.1	*	.0	*	.1	*	*	*	.0	*	.3	
1/2<1	0-3	*	.0	.0	.0	.1	*	*	.0	.0	.1	.2	
	4-10	.1	.0	*	.1	.1	*	.0	*	.0		.4	
	11-21	.1	.0	.0	*	.1	.0	.0	.0	.0		.3	
	22+	.1	*	.0	*	.4	.1	.0	.0	.0		.5	
	TOT %	.3	*	*	.2	.6	.1	*	*	.0	.1	1.3	
1<2	0-3	.0	.0	.0	.0	.0	*	.0	*	.0	*	.1	
	4-10	.0	.0	.0	*	.1	*	*	*	.0		.1	
	11-21	.1	*	.0	.1	.1	*	*	*	.0		.3	
	22+	*	.0	.0	*	.1	*	.0	.1	.0		.2	
	TOT %	.2	*	.0	.1	.2	.1	*	.1	.0	*	.7	
2<5	0-3	.0	.0	.0	*	.0	*	.0	*	.0	*	.1	
	4-10	.1	*	*	.1	.2	.1	*	*	.0		.5	
	11-21	.4	.1	*	.2	.3	.1	.0	.1	.0		1.1	
	22+	.3	*	*	.1	.6	.1	*	.1	.0		1.3	
	TOT %	.8	.1	*	.4	1.1	.3	*	.3	.0	*	3.1	
5<10	0-3	.1	.1	.1	.1	.1	*	*	*	.0	.8	1.5	
	4-10	1.3	.7	.1	.8	1.7	.3	.1	.5	.0		5.3	
	11-21	2.3	.6	.1	1.1	2.4	.4	.2	1.2	.0		8.4	
	22+	2.8	.3	*	.8	3.4	.5	.1	1.2	.0		9.0	
	TOT %	6.6	1.6	.3	2.8	7.6	1.2	.5	2.9	.0	.8	24.4	
10+	0-3	.5	.1	.1	.2	.4	.2	.1	.1	.0	2.0	3.8	
	4-10	5.9	2.3	.8	2.3	4.8	1.8	1.0	2.4	.0		21.3	
	11-21	10.3	2.4	.6	3.5	6.6	1.8	1.0	4.6	.0		30.6	
	22+	4.6	.6	.1	1.3	4.7	.7	.3	2.2	.0		14.4	
	TOT %	21.3	5.4	1.6	7.2	16.5	4.5	2.3	9.3	.0	2.0	70.1	
	TOT OBS												6444
	TOT PCT	29.2	7.2	2.0	10.7	26.0	6.3	2.9	12.7	.0	3.0	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.9	.6	1.9	7.2	10.9	4.7	2.1	.4	.3	.1	29.2	70.8	1377
06&09	1.0	.3	1.7	8.2	12.6	7.0	1.6	.3	.4	.3	33.4	66.6	541
12&15	1.6	.2	.3	6.3	14.1	7.6	2.8	1.1	.0	1.2	35.2	64.8	659
18&21	.6	.8	2.1	6.9	16.0	9.9	1.5	.7	.3	.5	39.5	60.5	934
TOT PCT	.9	.5	1.7	7.1	13.1	7.0	2.0	.6	.3	.4	33.7	66.3	3511 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.2	1.3	.6	3.2	22.9	71.8	3104
06&09	.9	1.4	.7	2.9	26.0	68.1	973
12&15	.6	1.1	.8	2.4	26.4	68.7	1516
18&21	.2	1.8	.9	3.5	24.7	68.9	1198
TOT PCT	.4	1.4	.7	3.1	24.3	70.2	6791 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.9	3.5	12.2	17.7	70.1	1366
06&09	1.0	3.6	12.6	22.1	65.3	527
12&15	1.5	2.3	10.7	28.8	60.5	588
18&21	.7	3.7	12.4	28.1	59.5	925
TOT PCT	.9	3.4	12.1	23.1	64.8	3406 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	*	.1	.0	.0	.0		.1
70/74	.0	.0	.1	.2	.3	.1	.2	.1		.9
65/69	*	.0	*	.2	.6	1.3	1.8	1.1		5.6
60/64	.0	*	.2	.4	1.8	4.5	5.0	7.7		19.7
55/59	.0	.1	.3	.8	3.8	7.5	10.8	9.4		32.4
50/54	.0	.0	.1	.8	3.2	6.0	10.2	8.0		28.3
45/49	.0	.0	.1	.2	1.4	2.3	4.8	3.5		12.3
40/44	.0	.0	.0	.1	.0	.1	.4	.2		.7
TOTAL PCT	*	.1	.8	2.4	11.3	22.0	33.1	30.2	9592	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	*	.0	.0	.0	.0	.0	.0	.0	.0
.5	.1	.0	.0	*	.0	.0	.2	.0	.0
3.2	.6	*	.2	.2	.1	.2	1.0	.0	.0
8.5	1.6	.5	1.5	2.5	.7	.6	3.5	.0	.3
10.8	1.9	.8	3.5	7.4	1.7	.8	5.0	.0	.5
5.2	1.1	.6	3.9	9.5	3.2	1.1	3.1	.0	.6
.6	.2	*	1.6	5.9	2.4	.6	.5	.0	.4
.1	.1	.0	.1	.3	.2	.0	*	.0	*
28.9	5.8	2.0	10.8	25.9	8.3	3.2	13.4	.0	1.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	79	68	66	58	51	47	39	58.2	3324
06&09	73	65	63	56	50	46	39	56.9	1053
12&15	70	63	61	55	49	46	39	55.2	1090
18&21	73	64	61	55	49	46	37	54.9	1256
TOT	79	67	65	57	49	47	37	56.7	7323

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	*	6.3	18.7	28.6	27.9	18.4	78	1121
06&09	.0	3.7	9.7	24.5	32.1	30.0	83	616
12&15	.0	1.5	7.1	18.3	35.6	37.5	86	1168
18&21	.0	2.3	9.1	18.8	36.0	33.8	84	876
TOT	1	134	428	846	1251	1121	83	3781

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.1	.0	*	*	.1	*	8	.0	.3
11/13	.0	.0	.0	.0	.1	.1	.2	.3	.1	.1	.0	24	.0	.8
9/10	.0	.0	.0	.1	.1	.2	.4	.6	.2	.1	.0	47	.0	1.6
7/8	.0	.0	.0	.2	.1	.8	.8	.7	.1	*	.0	83	.1	2.5
6	.0	.0	.0	.0	.2	.6	.5	.3	.2	.0	.0	58	.0	1.8
5	.0	.0	.1	.2	1.2	1.6	2.3	1.1	.2	*	.0	196	.1	6.5
4	.0	.0	.0	.2	1.9	1.5	2.0	.8	.1	.0	.0	200	.2	6.3
3	.0	.0	.0	.3	1.6	1.7	2.3	.5	.1	.0	.0	200	.1	6.5
2	.0	.0	.1	.8	2.8	3.7	2.9	.8	*	.0	.0	326	.1	10.9
1	.0	.0	.1	1.2	2.1	2.9	2.5	.5	.0	.0	.0	281	.1	9.1
0	.0	.0	.5	2.4	4.3	4.2	2.3	.3	.1	.0	.0	413	.5	13.6
-1	.0	*	.3	2.0	2.8	1.9	1.4	.2	.0	.0	.0	265	.2	8.4
-2	.0	.0	.9	2.4	2.1	1.5	.7	*	.0	.0	.0	223	.2	7.4
-3	.0	.0	1.2	2.1	1.3	.9	.4	.0	.0	.0	.0	175	.2	5.7
-4	.0	.1	1.1	1.7	1.2	.5	.2	.0	.0	.0	.0	149	*	4.7
-5	.0	.2	1.7	1.4	1.2	.3	.1	*	.0	.0	.0	146	.1	4.8
-6	*	.3	.9	.6	.3	.1	.1	.0	.0	.0	.0	77	*	2.3
-7/-8	*	.6	1.1	.8	.3	.1	*	.0	.0	.0	.0	89	*	3.0
-9/-10	*	.1	.3	.4	.0	*	*	.0	.0	.0	.0	26	.1	.9
-11/-13	.0	.1	.2	*	.1	.1	.0	.0	.0	.0	.0	14	*	.5
-14/-16	.0	.0	*	.0	*	*	.0	.0	.0	.0	.0	3	.0	.1
-17/-19	.0	*	.0	.0	*	.0	.0	.0	.0	.0	.0	2	.0	.1
TOTAL												3003		
PCT	.1	1.4	8.4	16.8	23.7	22.8	19.1	6.1	1.2	.3	*	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.7	*	.0	.0	.0	1.2
1-2	.1	5.1	4.5	.0	.0	.0	9.7
3-4	.0	1.2	6.2	1.8	.0	.0	9.2
5-6	*	.3	2.9	2.3	.4	.0	6.0
7	.0	*	.6	1.2	.5	.0	2.3
8-9	.0	*	.2	.5	.3	.0	1.0
10-11	.0	.0	*	.2	.2	.0	.4
12	.0	.0	*	*	*	.0	.1
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	*	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	7.4	14.9	6.1	1.4	.0	30.1

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.5	.0	.0	.0	.0	.6
1-2	.1	1.7	1.0	.0	.0	.0	2.8
3-4	.0	.6	1.7	.4	.0	.0	2.7
5-6	.0	*	.5	.3	*	.0	.9
7	.0	.0	.1	.2	*	.0	.2
8-9	.0	*	*	.1	.0	.0	.1
10-11	.0	.0	*	*	.0	.0	*
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.8	3.3	1.0	.1	.0	7.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	.0	.0	.0	.0	.2
1-2	.1	.5	.3	.0	.0	.0	.8
3-4	.0	.2	.3	.0	.0	.0	.6
5-6	.0	.0	.1	*	.0	.0	.1
7	.0	.0	*	*	.0	.0	*
8-9	.0	.0	*	*	.0	.0	.1
10-11	.0	.0	*	.0	.0	.0	*
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	*	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.9	.8	.1	.0	.0	1.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	*	.0	.0	.0	.4
1-2	.1	1.9	1.3	.0	.0	.0	3.2
3-4	.0	.7	1.8	.4	.0	.0	3.0
5-6	.0	.1	1.3	.7	*	.0	2.0
7	.0	*	.5	.5	.1	.0	1.1
8-9	.0	*	.1	.1	.1	.0	.3
10-11	.0	.0	.0	.1	*	.0	.1
12	.0	.0	.0	.0	*	*	*
13-16	.0	.0	*	.0	.1	.0	.1
17-19	.0	.0	.0	.0	*	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	*	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	*	.0	*
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.0	4.9	1.9	.3	*	10.3

PERIOD: (OVER-ALL) 1963-1978 ANNUAL AREA 0028 COOK STRAIT 41.4S 174.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.8	*	.0	.0	.0	1.2
1-2	.2	4.0	2.1	.0	.0	.0	6.3
3-4	.0	1.3	4.3	1.0	.0	.0	6.6
5-6	*	.2	2.2	1.8	.5	.0	4.7
7	.0	*	.9	1.9	1.2	.1	4.0
8-9	.0	.0	.3	.6	.7	.1	1.6
10-11	.0	.0	.1	.6	.4	.1	1.2
12	.0	.0	.1	.2	.1	*	.4
13-16	.0	.0	*	.2	.1	.1	.5
17-19	.0	.0	*	.1	.1	*	.2
20-22	.0	.0	.0	.0	.1	*	.1
23-25	.0	.0	*	.0	*	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	*	.0	*	.1
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	6.3	10.0	6.3	3.2	.5	26.8

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	*	.3	.0	.0	.0	.0	.4
1-2	.2	1.4	.6	.0	.0	.0	2.1
3-4	.0	.8	1.1	.2	.0	.0	2.0
5-6	.0	*	.6	.1	*	.0	.7
7	.0	*	.1	.2	.2	*	.5
8-9	.0	*	.1	.1	*	*	.3
10-11	.0	.0	*	*	.1	.0	.1
12	.0	.0	.0	*	*	.0	.1
13-16	.0	.0	.0	.1	.1	*	.2
17-19	.0	.0	*	.0	*	*	.1
20-22	.0	.0	.0	*	.0	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.6	2.5	.8	.5	.1	6.6

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	*	.1	.0	.0	.0	.0	.1
1-2	*	.8	.4	.0	.0	.0	1.2
3-4	.0	.3	.5	.1	.0	.0	.9
5-6	.0	.0	.2	.1	.0	.0	.3
7	.0	.0	*	*	*	.0	.1
8-9	.0	.0	*	.0	.0	.0	*
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.2	1.2	.3	*	.0	2.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.5	*	.0	.0	.0	.6	
1-2	*	1.9	2.1	.0	.0	.0	4.1	
3-4	*	.5	1.9	.8	.0	.0	3.1	
5-6	.0	*	1.1	.9	.1	.0	2.2	
7	.0	.0	.4	.5	.2	.0	1.1	
8-9	.0	.0	*	.1	.1	.0	.3	
10-11	.0	.0	*	*	*	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.1	.1	.0	.1	
17-19	.0	.0	.0	*	*	.0	*	
20-22	.0	.0	*	*	*	.0	.1	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	2.9	5.7	2.5	.4	.0	11.6	97.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.3	3.4	.1	.0	.0	.0	7.8	
1-2	.9	17.3	12.1	.0	.0	.0	30.2	
3-4	*	5.6	17.7	4.6	.0	.0	27.9	
5-6	.1	.6	6.6	6.2	1.2	.0	16.9	
7	.0	.1	2.7	4.4	2.1	.1	9.3	
8-9	.0	.1	.8	1.5	1.1	.1	3.6	
10-11	.0	.0	.1	.9	.7	.1	1.9	
12	.0	.0	.1	.2	.2	*	.6	
13-16	.0	.0	*	.4	.4	.2	1.0	
17-19	.0	*	*	.2	.2	.1	.4	
20-22	.0	.0	*	*	.1	*	.2	
23-25	.0	.0	*	*	*	.0	.1	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	*	.0	*	.1	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								4185
TOT PCT	5.3	27.1	42.5	18.6	5.9	.6	100.0	

PERIOD: (OVER-ALL) 1954-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.9	10.1	13.9	9.5	6.8	2.1	1.4	.5	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2018	4
6-7	.0	.8	3.3	5.5	5.7	3.9	2.3	.6	1.1	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	1964	7
8-9	.0	.3	1.6	2.0	2.2	1.3	1.3	.4	1.0	.2	*	*	*	.0	.0	.0	.0	.0	.0	459	8
10-11	.0	2.0	.9	.8	.7	.5	.5	.1	.3	.2	.0	.1	.0	*	.0	.0	.0	*	.0	275	6
12-13	.0	.0	2.9	1.0	.5	.3	.2	.1	.2	.1	.1	*	.0	.0	.0	.0	.0	.0	.0	232	5
>13	.0	.0	.0	1.3	.5	.3	.3	.1	.3	.1	.1	*	.1	.0	.0	.0	*	.0	.0	147	10
INDET	2.1	.1	.7	1.0	.4	.4	.1	.1	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	225	4
TOTAL																				4425	6
PCT	3.1	13.3	23.3	21.2	16.9	8.8	6.1	1.9	3.6	1.2	.3	.3	*	.1	.0	.0	*	.0	.0	100.3	

PERIOD: (PRIMARY) 1892-1978
(OVER-ALL) 1867-1978

AREA 0028 COOK STRAIT
41.4S 174.5E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
77/78	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
75/76	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
73/74	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
71/72	.0	.3	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	4	.1
69/70	.3	.6	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.2	7	.2
67/68	1.4	5.1	1.6	1.5	.0	.0	.0	.0	.0	.0	.0	.0	26	.7
65/66	5.8	14.0	3.2	4.6	.0	.0	.0	.0	.0	.0	.3	1.1	86	2.4
63/64	16.8	20.6	16.2	7.7	1.7	.0	.0	.6	.0	.0	.8	4.1	206	5.7
61/62	24.0	25.7	22.4	10.2	3.8	.5	.0	.6	.0	.9	5.4	8.0	311	8.6
59/60	23.4	16.2	33.1	20.9	13.5	.9	.5	1.2	5.4	3.7	11.1	14.1	433	12.0
57/58	18.5	13.0	16.2	26.0	20.1	4.7	1.9	3.5	9.4	10.6	23.6	32.3	560	15.5
55/56	8.2	4.4	7.1	20.4	28.4	15.6	6.5	11.1	13.5	32.4	33.2	29.8	644	17.8
53/54	1.4	.0	.0	6.1	21.1	13.7	15.9	17.0	23.9	22.7	18.2	10.0	436	12.1
51/52	.0	.0	.0	.5	9.7	46.2	30.9	33.9	26.5	16.1	5.4	.5	518	14.3
49/50	.0	.0	.0	.0	1.7	16.7	33.6	21.6	12.1	7.4	1.9	.0	288	8.0
47/48	.0	.0	.0	.0	.0	.9	8.1	6.4	4.9	2.8	.0	.0	62	1.7
45/46	.0	.0	.0	.0	.0	.7	1.3	2.3	2.2	1.4	.0	.0	20	.6
43/44	.0	.0	.0	.0	.0	.0	1.3	1.8	2.2	.0	.0	.0	13	.4
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	299	319	308	196	289	424	372	171	223	216	368	440	3614	100.0
MEAN	60.3	61.7	60.3	58.9	55.8	52.2	51.0	51.7	52.7	53.9	56.1	57.5	56.0	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1013	1011	1009	1011	1010	1008	1012	1012	1011	578
FEB	1016	1014	1014	1012	1014	1016	1017	1016	1015	558
MAR	1017	1016	1018	1018	1017	1015	1017	1017	1017	644
APR	1014	1013	1015	1017	1013	1011	1017	1013	1014	471
MAY	1013	1012	1012	1014	1013	1017	1011	1013	1013	597
JUN	1013	1012	1011	1012	1012	1011	1011	1014	1012	534
JUL	1015	1012	1011	1011	1016	1005	1009	1013	1013	479
AUG	1014	1013	1012	1014	1014	1017	1013	1013	1014	418
SEP	1013	1010	1015	1012	1012	1011	1013	1011	1012	488
OCT	1013	1012	1012	1008	1016	1016	1017	1014	1013	475
NOV	1012	1011	1007	1008	1011	1007	1012	1009	1010	628
DEC	1013	1011	1009	1010	1011	1012	1012	1013	1012	692
ANN	1014	1012	1012	1012	1013	1012	1013	1013	1013	6562
OBS	1608	1398	425	509	1135	352	424	711		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	991	993	999	1006	1011	1017	1023	1026	1032
FEB	986	996	1001	1010	1015	1020	1024	1029	1033
MAR	994	1000	1002	1011	1017	1023	1029	1032	1038
APR	983	990	997	1008	1014	1020	1029	1033	1036
MAY	985	987	992	1005	1013	1021	1028	1032	1035
JUN	984	985	993	1005	1014	1020	1028	1034	1038
JUL	981	988	992	1005	1014	1022	1030	1034	1041
AUG	982	987	995	1007	1015	1022	1029	1031	1040
SEP	980	989	994	1006	1013	1018	1027	1032	1036
OCT	987	993	997	1007	1013	1020	1027	1032	1033
NOV	989	987	994	1006	1011	1018	1025	1027	1030
DEC	988	994	998	1007	1011	1017	1026	1031	1033

PERIOD: (PRIMARY) 1928-1978
(OVER-ALL) 1868-1978

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	2.2	1.0	3.7	.0	.0	.0	.0	6.8	.6	.6	7.8	.0	1.4	.0		82.7
NE	1.3	.3	1.3	.0	.0	.0	.0	2.9	1.2	.8	6.1	.0	4.4	.0		84.6
E	2.0	11.8	5.1	.0	.0	.0	.0	19.0	5.6	.4	5.4	.0	.9	.0		68.8
SE	3.5	10.5	2.6	.0	.0	.0	.0	16.6	3.7	.0	7.5	.0	.0	.0		72.2
S	4.4	7.2	2.5	.0	.0	.0	.0	14.1	2.9	.0	7.1	.6	.6	.0		74.7
SW	2.3	8.2	1.0	.0	.0	.0	.0	11.5	1.9	.8	1.1	.0	1.5	.0		83.2
W	1.1	.0	.0	.0	.0	.0	.0	1.1	.0	1.1	6.7	.0	1.1	.0		89.9
NW	.7	.7	.9	.0	.0	.0	.0	2.3	1.5	.0	12.0	.0	1.7	.0		82.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	2.6	.0	2.6	.0	.0	.0	.0	5.1	2.6	.0	2.6	.0	.0	.0		89.7
TOT PCT	2.2	4.3	2.1	.0	.0	.0	.0	8.5	2.1	.4	6.9	.1	1.6	.0		80.4
TOT OBS:	1200															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.0	4.3	2.4	.0	.0	.0	.0	9.8	2.4	.3	5.7	.0	2.4	.0		79.4
06&09	2.5	3.2	2.1	.0	.0	.0	.0	7.9	2.1	.0	3.9	.4	1.8	.0		83.9
12&15	.6	6.1	1.3	.0	.0	.0	.0	8.1	2.6	1.3	9.4	.0	1.0	.0		77.7
18&21	2.4	2.4	2.1	.0	.0	.0	.0	7.0	1.4	.3	7.7	.0	1.0	.0		82.6
TOT PCT	2.2	4.1	2.0	.0	.0	.0	.0	8.3	2.2	.5	6.7	.1	1.6	.0		80.7
TOT OBS:	1245															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.3	5.5	5.1	1.1	.2	.0		13.2	11.8	12.0	11.4	6.9	14.4	13.4	15.7	15.2	16.6
NE	1.2	6.5	6.8	.6	.0	.0		15.1	11.0	16.7	22.4	21.5	13.9	15.4	7.8	14.3	8.1
E	.8	4.5	3.3	.2	.1	.0		8.9	10.6	9.1	9.5	13.6	8.3	8.9	10.3	5.3	5.1
SE	.6	4.3	3.0	.4	*	.0		8.2	10.8	7.6	12.5	9.0	8.2	7.9	6.9	6.3	9.5
S	.6	5.2	6.0	2.3	.5	.0		14.7	14.2	13.8	17.9	23.6	12.1	15.3	7.8	19.2	6.9
SW	.6	3.2	4.3	1.9	1.0	.1		11.1	16.7	13.6	3.4	7.2	8.2	12.2	7.1	17.8	12.4
W	1.3	2.5	2.9	1.3	.5	.0		8.4	13.9	6.7	4.1	5.5	10.3	9.9	11.9	8.6	9.9
NW	2.1	5.8	6.0	2.6	.5	.0		17.0	13.4	16.7	17.0	4.9	21.1	14.8	28.7	11.9	24.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.4							3.4	.0	3.7	1.7	3.8	3.3	2.2	3.7	1.7	7.4
TOT OBS	184	379	578	161	43	1	1546		12.4	327	116	159	180	277	134	178	175
TOT PCT	11.9	37.5	37.4	10.4	2.8	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.8	5.9	2.8	.6	.0		13.2	11.8	11.9	10.9	14.1	15.9
NE	3.5	9.0	2.5	.1	.0		15.1	11.0	18.2	17.5	13.0	11.3
E	2.6	5.0	1.2	.1	.1		8.9	10.6	9.2	11.8	9.4	5.2
SE	2.4	4.0	1.6	.1	.0		8.2	10.8	8.9	8.6	7.6	7.6
S	3.1	6.5	3.8	1.3	.1		14.7	14.2	14.9	18.4	12.8	13.1
SW	1.8	4.4	3.2	1.4	.3		11.1	16.7	10.9	7.7	10.5	15.2
W	2.2	3.0	2.3	.9	*		8.4	13.9	6.0	8.0	10.6	9.2
NW	4.9	6.4	4.0	1.5	.2		17.0	13.4	16.8	13.5	19.3	18.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.4						3.4	.0	3.2	3.5	2.7	4.5
TOT OBS	430	682	332	92	10	1546		12.4	443	339	411	353
TOT PCT	27.8	44.1	21.5	6.0	.6		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.2	7.0	36.1	40.2	9.9	3.6	.0	12.9	100.0	443
06&09	3.5	6.8	38.9	36.9	11.2	2.7	.0	12.4	100.0	339
12&15	2.7	8.5	38.4	36.5	11.9	1.9	.0	12.5	100.0	411
18&21	4.5	11.9	36.5	35.4	8.5	2.8	.3	11.8	100.0	353
TOT	53	131	579	578	161	43	1	12.4		1546
PCT	3.4	8.5	37.5	37.4	10.4	2.8	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.1	1.8	4.5	2.1		4.7
NE	7.5	2.1	5.6	3.2		4.0
E	1.6	1.9	3.6	3.4		5.3
SE	.5	1.2	4.2	3.5		6.2
S	3.8	3.3	7.1	4.4		5.1
SW	3.4	2.0	4.9	3.7		5.0
W	2.8	1.2	1.5	.5		3.3
NW	2.8	2.2	2.6	1.3		4.1
VAR	.0	.0	.0	.0		.0
CALM	1.2	.5	.3	.5		3.5
TOT OBS	155	94	199	133	581	4.7
TOT PCT	26.7	16.2	34.3	22.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.0	.3	.0	1.0	.4	.1	.0	.2	.2	9.0	
NE	.0	.0	*	.7	1.5	1.4	.6	.0	.0	.3	13.9	
E	.0	.0	.1	1.7	2.1	1.2	.1	.0	.0	.0	5.5	
SE	.0	.0	*	1.5	2.8	1.3	.1	.0	.3	.0	8.4	
S	.1	.0	.8	2.4	3.0	2.3	.3	.0	.0	.2	9.3	
SW	*	.0	.3	1.0	3.6	1.4	.1	.0	.0	.0	7.6	
W	.0	.0	.0	.2	.3	.2	.2	.0	.0	.0	5.1	
NW	.0	.0	.0	.0	1.0	.3	.3	.2	.2	.0	7.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.2	.2	.0	.2	.0	.0	.0	.0	2.1	
TOT OBS	2	0	11	44	89	50	11	1	4	4	365	581
TOT PCT	.3	.0	1.9	7.6	15.3	8.6	1.9	.2	.7	.7	62.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
= OR >5000	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
= OR >3500	2.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0
= OR >2000	10.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
= OR >1000	22.2	26.7	26.7	26.7	26.7	26.7	26.7	26.7
= OR >400	25.7	33.2	34.2	34.2	34.2	34.2	34.2	34.2
= OR >300	26.4	34.8	36.0	36.0	36.0	36.0	36.0	36.0
= OR >150	26.4	34.8	36.0	36.0	36.0	36.0	36.0	36.0
= OR > 0	26.4	34.8	36.3	36.5	36.5	36.5	36.5	36.5
TOTAL	159	210	219	220	220	220	220	220

TOTAL NUMBER OF OBS: 603 PCT FREQ NH <5/8: 63.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
15.5	18.2	12.4	9.4	8.1	6.4	6.6	9.1	14.4 .2	639

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	
1/2<1	PCP	.1	.1	.3	.3	.1	.1	.0	.0	.0	.2	1.2	
	NO PCP	.5	.9	.1	.5	.3	.1	.3	1.7	.0	.0	4.3	
	TOT %	.6	1.0	.4	.8	.3	.2	.3	1.7	.0	.2	5.5	
1<2	PCP	.2	.0	.1	.0	.1	.1	.0	.0	.0	.0	.4	
	NO PCP	.0	*	*	.0	.0	*	.1	.2	.0	.0	.4	
	TOT %	.2	*	.1	.0	.1	.1	.1	.2	.0	.0	.8	
2<5	PCP	.0	.0	.0	.1	.1	.2	.0	.1	.0	.0	.5	
	NO PCP	.3	.3	.3	.2	.1	*	.3	1.0	.0	.0	2.5	
	TOT %	.3	.3	.3	.3	.3	.3	.3	1.1	.0	.0	3.0	
5<10	PCP	.8	.1	1.1	1.0	1.3	.4	.1	.2	.0	.0	4.6	
	NO PCP	3.0	3.7	2.9	2.1	3.7	2.5	2.5	5.8	.0	1.3	27.4	
	TOT %	3.9	3.8	3.9	3.1	5.0	2.9	2.5	6.0	.0	1.3	32.0	
10+	PCP	.1	.3	.3	.1	.4	.5	.0	.1	.0	.0	1.8	
	NO PCP	8.3	10.4	4.3	4.7	8.1	7.0	4.3	8.0	.0	1.8	56.7	
	TOT %	8.5	10.7	4.5	4.8	8.5	7.5	4.3	8.1	.0	1.8	58.5	
	TOT OBS												1198
	TOT PCT	13.1	15.8	9.3	8.9	14.2	10.9	7.5	17.0	.0	3.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.1	.0	.0	.0	.0	.0	.1	*	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.0	.0	.0	.0	.0	.1	*	.0	.1	.2	
1/2<1	0-3	.2	.2	*	.2	.0	.0	.2	.4	.0	.2	1.4	
	4-10	.3	.6	.2	.6	.2	.1	.1	1.1	.0		3.3	
	11-21	*	.2	.1	.0	.1	.1	.0	.1	.0		.6	
	22+	.1	*	.0	.0	.0	.0	.0	*	.0		.2	
	TOT %	.6	1.0	.4	.8	.3	.2	.2	1.7	.0	.2	5.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	*	*	.0	.1	.0	*	.2	.0		.5	
	11-21	.1	.0	.1	.0	.1	.1	*	*	.0		.4	
	22+	.0	.0	.0	.0	.0	*	.1	.0	.0		.1	
	TOT %	.2	*	.1	.0	.2	.1	.1	.2	.0	.0	1.0	
2<5	0-3	.2	.1	.0	.1	.0	.0	.1	.5	.0	.0	1.0	
	4-10	.0	.2	.2	.0	.1	.2	.1	.3	.0		1.1	
	11-21	.1	.0	.1	.2	.1	*	.1	.1	.0		.7	
	22+	.0	.0	.0	.0	.1	*	.0	.2	.0		.2	
	TOT %	.3	.3	.3	.3	.3	.3	.3	1.1	.0	.0	3.0	
5<10	0-3	.4	.6	.4	.1	.0	.3	.8	.8	.0	1.2	4.6	
	4-10	1.7	1.8	2.0	1.3	1.8	.9	.7	1.8	.0		11.9	
	11-21	.9	1.4	1.3	1.2	2.1	1.0	.9	2.0	.0		10.7	
	22+	.5	*	.2	.4	1.1	.6	.4	1.4	.0		4.6	
	TOT %	3.5	3.7	3.9	3.0	5.0	2.9	2.8	6.0	.0	1.2	31.9	
10+	0-3	.7	.5	.3	.3	.6	.3	.3	.6	.0	1.8	5.3	
	4-10	3.7	3.9	2.1	2.6	2.6	2.4	1.4	2.5	.0		21.1	
	11-21	3.5	5.5	2.0	1.8	3.5	3.0	1.7	3.4	.0		24.5	
	22+	.7	.6	.2	*	1.7	1.9	1.0	1.5	.0		7.6	
	TOT %	8.6	10.5	4.5	4.6	8.4	7.6	4.4	8.0	.0	1.8	58.5	
	TOT OBS												1226
	TOT PCT	13.2	15.5	9.2	8.7	14.2	11.0	7.9	17.0	.0	3.3	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.7	.0	1.7	7.5	14.4	6.3	1.1	.6	.0	.6	33.9	66.1	174
06&09	.0	.0	.7	7.8	18.3	7.2	2.0	.0	.0	1.3	37.3	62.7	153
12&15	.0	.0	2.3	4.5	11.3	12.8	.8	.0	2.3	.0	33.8	66.2	133
18&21	.0	.0	2.4	8.3	13.6	8.3	3.0	.6	.6	.6	37.3	62.7	169
TOT	3	0	11	45	91	53	11	2	4	4	224	405	629
PCT	.5	.0	1.7	7.2	14.5	8.4	1.7	.3	.6	.6	35.6	64.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	6.3	.8	3.7	33.6	55.6	378
06&09	.0	3.8	1.7	4.2	31.5	58.7	286
12&15	.3	0.0	.9	.9	35.8	56.0	318
18&21	.7	4.1	.3	3.4	25.1	66.3	291
TOT	3	46	12	39	404	749	1273
PCT	.2	5.2	.9	3.1	31.7	58.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.8	3.6	11.8	23.7	64.5	169
06&09	.0	.7	9.5	28.4	62.2	148
12&15	.0	2.4	8.1	28.2	63.7	124
18&21	.0	2.5	12.3	27.2	60.5	162
TOT	3	14	64	161	378	603
PCT	.5	2.3	10.6	26.7	62.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.5	.0	.3	.3	.0	11	1.0
70/74	.0	.0	.3	.9	1.9	3.2	2.6	.9	105	9.8
65/69	.0	.0	.1	1.7	4.0	8.7	12.2	9.0	381	35.7
60/64	.0	.3	.0	1.0	5.3	12.2	11.9	9.5	428	40.2
55/59	.0	.0	.0	.2	1.9	4.9	3.8	1.7	133	12.5
50/54	.0	.0	.0	.1	.0	.5	.0	.2	8	.8
TOTAL	0	3	4	47	139	317	329	227	1066	100.0
PCT	.0	.3	.4	4.4	13.0	29.7	30.9	21.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.3	.0	.2	.1	.0	.1	.0	.0	.2
1.7	2.2	1.0	.3	.7	.1	1.2	1.9	.0	.7
7.5	6.3	3.1	2.0	2.6	2.3	2.5	8.4	.0	.9
3.4	5.8	3.9	4.3	7.7	5.5	3.7	4.6	.0	1.1
.3	.4	.8	1.6	4.9	3.3	.7	.4	.0	.1
.0	.0	.1	.0	.1	.5	.0	.1	.0	.0
13.2	14.9	8.9	8.5	16.1	11.7	8.2	15.5	.0	3.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	79	76	74	66	58	52	50	66.3	453
06&09	79	74	72	65	57	54	52	64.8	346
12&15	73	70	69	63	57	54	50	62.9	428
18&21	75	72	70	64	57	54	53	63.6	352
TOT	79	75	72	64	57	54	50	64.4	1579

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	8.4	17.7	32.5	25.1	16.4	77	311
06&09	.0	5.8	13.2	27.9	28.7	24.4	80	258
12&15	.0	2.2	12.3	26.4	36.8	22.4	82	277
18&21	.0	4.2	8.5	30.8	31.5	25.0	81	260
TOT	0	58	145	326	336	241	80	1106

JANUARY

PERIOD: (PRIMARY) 1928-1978
(OVER-ALL) 1868-1978

AREA 0029 HAWKE BAY
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.1	.2	.0	3	.0	.3
11/13	.0	.0	.0	.1	.2	.3	.5	.1	12	.0	1.3
9/10	.0	.0	.0	.0	.5	.2	.4	.2	13	.1	1.3
7/8	.0	.0	.0	.3	1.4	1.6	.9	.0	36	.4	3.4
6	.0	.0	.0	.4	.7	.4	1.2	.0	26	.4	2.3
5	.0	.0	.4	.8	1.7	1.2	.5	.0	42	.3	4.1
4	.0	.0	.2	1.5	1.9	2.0	.4	.0	57	.5	5.4
3	.0	.0	.3	1.3	1.9	2.1	.1	.0	54	1.0	4.8
2	.0	.0	.6	3.3	4.8	2.1	.3	.0	105	.8	10.2
1	.0	.0	.7	3.0	6.4	1.2	.1	.0	108	1.4	10.0
0	.0	.1	1.9	6.0	6.7	.3	.0	.0	142	1.6	13.4
-1	.0	.2	1.9	5.1	4.2	.2	.0	.0	110	.7	10.9
-2	.0	.0	1.6	4.5	1.4	.1	.0	.0	72	.8	6.8
-3	.0	.2	1.5	2.9	.8	.2	.0	.0	53	.2	5.4
-4	.0	.0	1.3	2.2	.8	.0	.0	.0	41	.1	4.2
-5	.0	.1	1.5	.7	.4	.0	.0	.0	26	.0	2.7
-6	.1	.2	.8	.6	.3	.0	.0	.0	20	.0	2.1
-7/-8	.1	.2	1.1	.2	.0	.0	.0	.0	15	.0	1.6
-9/-10	.1	.2	.4	.3	.0	.0	.0	.0	10	.0	1.1
-11/-13	.0	.0	.1	.1	.0	.0	.0	.0	2	.0	.2
TOTAL	3	12	136	316	324	114	39	3	947	81	866
PCT	.3	1.3	14.4	33.4	34.2	12.0	4.1	.3	100.0	8.6	91.4

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.7	.0	.0	.0	.0	1.3
1-2	.0	3.3	.9	.0	.0	.0	4.2
3-4	.0	.6	2.2	.4	.0	.0	3.2
5-6	.2	.0	1.8	.0	.2	.0	2.2
7	.0	.0	.9	.2	.2	.0	1.2
8-9	.0	.0	.2	.0	.2	.0	.4
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.8	5.9	.7	.6	.0	12.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.5	.0	.0	.0	.0	.8
1-2	.2	4.1	1.8	.0	.0	.0	6.2
3-4	.0	2.1	5.6	.1	.0	.0	7.7
5-6	.0	.4	1.6	.2	.0	.0	2.2
7	.0	.0	1.7	.2	.0	.0	1.9
8-9	.0	.0	.4	.4	.0	.0	.8
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	7.1	11.1	.9	.0	.0	19.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6
1-2	.2	3.1	.4	.0	.0	.0	3.6
3-4	.0	1.1	2.6	.0	.0	.0	3.7
5-6	.0	.3	2.3	.0	.0	.0	2.6
7	.0	.0	.6	.2	.0	.0	.8
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.2	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.9	6.3	.2	.0	.0	11.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.1	2.9	.0	.0	.0	.0	3.0
3-4	.0	1.3	3.1	.0	.0	.0	4.3
5-6	.0	.1	1.1	.2	.0	.0	1.4
7	.0	.0	.4	.1	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.1	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	4.6	4.6	.3	.0	.0	9.5

PERIOD: (OVER-ALL) 1963-1978

JANUARY

TABLE 18 (CONT)

AREA 0029 HAWKE BAY
40.2S 177.1E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.6	.0	.0	.0	.0	1.2
1-2	.0	2.4	1.7	.0	.0	.0	4.1
3-4	.2	.4	1.6	.0	.0	.0	2.3
5-6	.0	.6	2.7	.5	.2	.0	3.9
7	.0	.0	.7	1.3	.4	.0	2.4
8-9	.0	.0	.0	.6	.0	.0	.6
10-11	.0	.0	.0	.4	.4	.0	.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.2	.2	.0	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.9	6.9	3.0	1.2	.0	15.8

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.0	.0	.0	.0	.0	.1
1-2	.2	2.3	.8	.0	.0	.0	3.3
3-4	.0	1.3	2.3	.0	.0	.0	3.6
5-6	.0	.1	1.7	.3	.3	.0	2.4
7	.0	.1	.5	.6	.0	.0	1.2
8-9	.0	.0	.2	.7	.2	.0	1.1
10-11	.0	.0	.2	.2	.1	.2	.7
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.2	.0	.4
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.2	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.7	5.8	2.4	1.0	.2	13.4

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2
1-2	.4	1.4	.6	.0	.0	.0	2.4
3-4	.0	.4	1.3	.2	.0	.0	1.8
5-6	.0	.0	.2	.2	.0	.0	.4
7	.0	.2	.2	.2	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	1.9	2.2	.5	.3	.0	5.6

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.3	.0	.0	.0	.0	.3	
1-2	.2	1.8	.7	.0	.0	.0	2.7	
3-4	.0	.3	1.7	.3	.0	.0	2.3	
5-6	.1	.0	1.1	.8	.4	.0	2.4	
7	.0	.0	.5	.5	.2	.0	1.2	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.1	.0	.1	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	2.3	4.1	1.6	.7	.0	8.9	97.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.8	2.7	.0	.0	.0	.0	7.5	
1-2	1.3	21.3	6.9	.0	.0	.0	29.4	
3-4	.4	7.3	20.2	.8	.0	.0	28.8	
5-6	.2	1.5	12.3	2.3	1.0	.0	17.3	
7	.0	.2	5.4	3.1	.8	.0	9.6	
8-9	.0	.0	1.0	1.7	.4	.0	3.1	
10-11	.0	.0	.2	.8	.6	.2	1.9	
12	.2	.0	.2	.2	.0	.0	.6	
13-16	.0	.2	.2	.4	.4	.0	1.3	
17-19	.0	.0	.0	.2	.0	.0	.2	
20-22	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								480
TOT PCT	6.9	33.1	46.5	9.6	3.8	.2	100.0	

PERIOD: (OVER-ALL) 1950-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	4.2	8.0	9.3	6.4	1.5	.2	.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	169	3
6-7	.0	.5	6.4	7.6	9.6	2.7	3.6	.5	2.0	.4	.4	.2	.0	.0	.0	.0	.0	.0	.0	187	7
8-9	.0	.4	2.2	2.2	4.4	1.6	3.1	.2	.5	.2	.0	.0	.2	.2	.0	.0	.0	.0	.0	83	8
10-11	.0	.5	.7	2.0	1.3	.9	1.3	.7	.9	.5	.2	.0	.4	.0	.0	.0	.0	.0	.0	52	9
12-13	.0	.0	.7	.2	.5	.2	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	7
>13	.0	.0	.0	1.3	.2	.5	.4	.7	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	19	9
INDET	1.1	.2	1.3	1.3	1.1	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	4
TOTAL	8	32	106	131	129	41	90	14	23	7	4	2	3	1	0	0	0	0	0	551	7
PCT	1.5	5.8	19.2	23.8	23.4	7.4	9.1	2.5	4.2	1.3	.7	.4	.5	.2	.0	.0	.0	.0	.0	100.0	

FEBRUARY

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	1.7	.0	3.1	.0	.0	.0	.0	4.8	.6	.6	4.4	.0	4.4		.6	84.5
NE	2.8	2.9	2.6	.0	.0	.0	.0	8.3	1.2	.0	8.6	.0	4.8		.0	77.2
E	5.8	5.8	4.0	.0	.0	.0	.0	15.6	2.0	.6	7.5	.0	1.2		.0	73.2
SE	2.4	5.1	2.1	.0	.0	.0	.0	9.6	4.5	.8	7.4	.0	2.1		.0	75.5
S	4.0	6.7	3.2	.0	.0	.0	.0	13.9	3.5	1.3	9.5	.0	1.1		.0	70.7
SW	8.0	8.2	3.3	.0	.0	.0	.0	19.5	3.9	2.2	7.5	.0	.9		.0	66.5
W	1.5	.0	1.0	.0	.0	.0	.0	2.5	.0	.0	5.0	.0	.0		.0	92.5
NW	1.6	3.4	1.4	.0	.0	.0	.0	6.4	.7	.7	4.5	.0	1.7		.0	86.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	7.1	.0	.0	.0	.0	.0	.0	7.1	3.6	10.7	.0	.0	.0		.0	82.1
TOT PCT	3.5	4.0	2.6	.0	.0	.0	.0	10.1	2.0	1.1	6.8	.0	2.3		.1	77.8
TOT OBS:	1031															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	1.7	4.3	2.0	.0	.0	.0	.0	7.9	2.6	.0	8.3	.0	4.0		.0	77.2
06&09	3.6	2.4	2.0	.0	.0	.0	.0	8.0	1.2	.0	5.6	.0	4.8		.0	80.3
12&15	4.2	5.3	2.8	.0	.0	.0	.0	12.3	2.5	3.9	8.1	.0	.0		.0	74.3
18&21	4.9	3.6	3.6	.0	.0	.0	.0	12.0	1.9	.4	4.4	.0	.4		.4	80.4
TOT PCT	3.5	4.0	2.5	.0	.0	.0	.0	10.0	2.1	1.1	6.8	.0	2.4		.1	77.8
TOT OBS:	1060															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.9	5.9	7.8	.8	.2	.0		15.5	12.4	13.9	12.6	17.6	14.1	17.7	10.0	18.6	16.2
NE	.8	7.7	7.1	.6	.1	.0		16.3	11.2	17.6	17.7	25.5	17.1	14.3	13.2	11.8	11.3
E	.3	5.6	2.8	.5	.1	.0		9.3	10.5	8.1	8.4	12.9	12.7	8.5	11.8	8.0	5.6
SE	.8	4.7	2.9	.4	*	.0		8.8	9.8	12.5	12.4	10.3	7.5	6.7	5.6	8.8	4.5
S	.4	5.5	8.5	3.7	.3	.0		18.3	15.5	17.7	19.4	17.0	19.1	16.8	23.0	20.6	16.2
SW	.6	4.9	3.8	2.3	.2	.0		11.8	13.9	10.0	15.4	7.0	5.9	13.4	15.9	14.8	15.4
W	.5	1.8	2.0	.7	.0	.0		5.0	13.0	5.4	.0	4.5	3.0	7.0	2.5	6.4	6.2
NW	1.5	5.0	4.9	.8	.1	.0		12.3	11.0	12.5	11.8	5.3	17.7	11.9	15.0	9.1	18.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.7							2.7	.0	2.3	2.2	.0	2.9	3.8	2.9	1.9	6.0
TOT OBS	111	532	517	127	13	0	1300		12.1	265	89	165	140	263	102	159	117
TOT PCT	8.5	40.9	39.8	9.8	1.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.4	9.5	3.3	.2	.1		15.5	12.4	13.6	16.0	15.5	17.6
NE	4.2	9.2	2.6	.3	*		16.3	11.2	17.7	21.6	14.0	11.6
E	2.5	5.4	1.4	.1	.0		9.3	10.5	8.2	12.8	9.4	7.0
SE	3.3	4.3	1.1	.1	.0		8.8	9.8	12.5	9.0	6.4	7.0
S	2.6	7.6	6.3	1.8	.1		18.3	15.5	18.1	18.0	18.6	18.8
SW	3.0	4.3	3.2	1.2	.1		11.8	13.9	11.4	6.5	14.1	15.0
W	1.1	2.1	1.4	.3	.0		5.0	13.0	4.0	3.9	5.8	6.3
NW	3.6	6.5	1.9	.3	.0		12.3	11.0	12.3	11.0	12.7	13.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.7						2.7	.0	2.3	1.3	3.6	3.6
TOT OBS	330	636	275	56	3	1300		12.1	394	305	365	276
TOT PCT	25.4	48.9	21.2	4.3	.2		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.3	5.9	41.0	40.1	9.9	.8	.0	12.2	100.0	354
06&09	1.3	6.9	40.7	43.9	6.2	1.0	.0	11.9	100.0	305
12&15	3.6	4.1	41.6	39.2	11.5	.0	.0	12.0	100.0	365
18&21	3.6	6.9	40.2	35.5	11.2	2.5	.0	12.2	100.0	276
TOT	95	76	532	517	127	13	0	12.1		1300
PCT	2.7	5.8	40.9	39.8	9.8	1.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	9.5	2.9	5.1	.9		3.0
NE	11.7	4.0	2.5	1.4		2.5
E	2.2	1.4	2.5	2.0		4.6
SE	.7	1.8	2.7	3.7		6.1
S	2.2	2.6	6.5	6.9		5.8
SW	2.7	2.1	2.0	3.7		4.8
W	2.1	1.3	2.2	.4		3.6
NW	4.7	1.3	3.1	.6		3.3
VAR	.0	.0	.0	.0		.0
CALM	.9	.4	.2	.4		3.2
TOT OBS	198	96	144	101	539	4.1
TOT PCT	36.7	17.8	26.7	18.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.3	1.3	.4	.2	.2	.5	.0	14.9	
NE	.2	.0	.0	.5	.6	.6	.6	.0	.0	.2	17.0	
E	.5	.0	.2	.6	1.8	.3	.6	.0	.0	.0	4.3	
SE	.1	*	.2	1.7	1.6	1.1	.4	.2	.0	.1	9.5	
S	.7	.3	.7	3.0	3.5	1.9	.7	.2	.0	.1	6.4	
SW	.2	.0	.4	1.3	1.2	1.1	.6	.0	.0	.0	5.9	
W	.0	.0	.1	.2	.4	.4	.0	.0	.0	.0	4.9	
NW	.0	.0	*	.0	.7	.6	.0	.0	*	.2	8.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	1.5	
TOT OBS	8	2	9	41	61	35	16	3	3	3	358	539
TOT PCT	1.5	.4	1.7	7.6	11.3	6.5	3.0	.6	.6	.6	66.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1
* OR >5000	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
* OR >3500	3.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5
* OR >2000	8.9	10.5	10.7	10.9	11.1	11.1	11.1	11.1
* OR >1000	18.0	20.7	21.6	22.0	22.2	22.2	22.2	22.2
* OR >600	21.6	27.1	28.9	29.3	29.5	29.6	29.6	29.6
* OR >300	22.2	28.2	30.4	30.9	31.1	31.3	31.3	31.3
* OR >150	22.2	28.4	30.7	31.3	31.5	31.6	31.6	31.6
* OR > 0	22.7	29.5	32.0	32.5	32.7	32.9	33.1	33.1
TOTAL	125	162	176	179	180	181	182	182

TOTAL NUMBER OF OBS: 550 PCT FREQ NH <5/8: 66.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
19.6	19.2	13.6	10.2	4.3	4.3	5.8	8.9	14.5	.3	508

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TABLE 8

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PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	.1	.0	.0	.1	.1	.0	.0	.0	.0	.4	
	TOT %	.1	.1	.0	.0	.1	.1	.0	.0	.0	.0	.4	
1/2<1	PCP	.1	.3	*	.2	.2	.3	.0	.0	.0	.1	1.3	
	NO PCP	.3	.8	.0	.5	.6	.4	.1	.4	.0	.0	2.9	
	TOT %	.4	1.1	*	.7	.8	.7	.1	.4	.0	.1	4.2	
1<2	PCP	.0	.1	*	.0	.3	.0	.1	.1	.0	.0	.7	
	NO PCP	.0	.2	.0	.0	.0	.0	.0	.1	.0	.0	.3	
	TOT %	.0	.3	*	.0	.3	.0	.1	.2	.0	.0	1.0	
2<5	PCP	.1	.1	.4	.3	.2	.1	.0	.0	.0	.0	1.2	
	NO PCP	.3	.1	.0	.2	.7	.2	.1	.0	.0	.0	1.6	
	TOT %	.4	.2	.4	.5	.9	.3	.1	.0	.0	.0	2.7	
5<10	PCP	.5	.7	.5	.2	1.6	1.1	.0	.8	.0	.1	5.5	
	NO PCP	3.0	3.3	2.6	3.1	5.6	3.1	1.1	4.2	.0	1.6	27.5	
	TOT %	3.5	4.1	3.1	3.3	7.2	4.1	1.1	4.9	.0	1.6	33.1	
10+	PCP	.1	.1	.3	.1	.2	.6	*	.0	.0	.0	1.5	
	NO PCP	11.4	10.8	4.5	4.5	8.1	5.1	3.4	8.5	.0	1.0	57.2	
	TOT %	11.5	10.9	4.8	4.6	8.3	5.7	3.4	8.9	.0	1.0	58.7	
	TOT OBS												1031
	TOT PCT	15.8	16.7	8.4	9.1	17.6	10.9	4.8	14.1	.0	2.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.1	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.1	*	.0	.0	.0	.1	.0	.0	.0		.2	
	TOT %	.1	.1	.0	.0	.1	.1	.0	.0	.0	.0	.4	
1/2<1	0-3	.0	.1	*	*	.0	.1	.0	.0	.0	.1	.4	
	4-10	.2	1.0	.0	.6	.4	.5	*	.4	.0		3.2	
	11-21	.1	.0	.0	.0	.1	.1	.1	.0	.0		.4	
	22+	.1	*	.0	.0	.1	*	.0	.0	.0		.2	
	TOT %	.4	1.1	*	.7	.6	.7	.1	.4	.0	.1	4.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.0	.0	.1	.0	.0	.1	.0		.4	
	11-21	.0	.1	*	.0	.2	.0	.1	.2	.0		.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.3	*	.0	.3	.0	.1	.3	.0	.0	1.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.2	.2	.0	.1	.0	.0		.6	
	11-21	.2	.1	.3	.1	.2	*	.0	.0	.0		1.0	
	22+	.1	.1	.1	.1	.6	.2	.0	.0	.0		1.3	
	TOT %	.4	.2	.4	.5	1.0	.3	.1	.0	.0	.0	2.8	
5<10	0-3	.3	.2	.0	.3	.2	.4	.4	.9	.0	1.6	4.3	
	4-10	1.7	2.1	2.1	1.5	2.1	1.5	.2	2.3	.0		13.6	
	11-21	1.2	1.6	.9	1.4	3.0	1.1	.5	1.6	.0		11.4	
	22+	.2	.1	.1	.1	1.8	1.2	.0	*	.0		3.6	
	TOT %	3.5	4.1	3.1	3.3	7.2	4.1	1.1	4.9	.0	1.6	32.9	
10+	0-3	.7	.7	.3	.6	.2	.2	.1	1.0	.0	1.0	4.8	
	4-10	4.0	4.6	2.9	2.7	2.4	2.4	1.2	2.9	.0		23.1	
	11-21	6.1	5.2	1.1	1.1	4.0	2.4	1.3	3.6	.0		24.9	
	22+	.7	.6	.5	.2	1.7	.6	.7	.9	.0		5.9	
	TOT %	11.5	11.0	4.8	4.6	8.2	5.7	3.4	8.5	.0	1.0	58.7	
	TOT OBS												1037
	TOT PCT	15.8	16.8	8.5	9.1	17.4	10.9	4.8	14.1	.0	2.7	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.9	1.3	1.3	3.2	7.6	8.2	3.2	.0	1.3	.0	27.8	72.2	158
06&09	.7	.0	2.0	7.4	10.8	4.7	1.4	.7	.0	1.4	29.1	70.9	148
12&15	1.6	.0	.0	8.8	8.8	4.0	2.4	.8	.0	.8	27.2	72.8	125
18&21	1.4	.0	2.8	9.7	15.3	7.6	4.2	.7	.7	.0	42.4	57.6	144
TOT	8	2	9	41	61	36	16	3	3	3	182	393	575
PCT	1.4	.3	1.6	7.1	10.6	6.3	2.8	.5	.5	.5	31.7	68.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	6.3	1.3	3.0	32.0	57.1	303
06&09	.4	3.2	1.6	3.6	29.5	61.8	251
12&15	.0	3.5	.3	2.1	42.0	52.1	286
18&21	.9	3.1	.9	3.1	27.0	65.0	226
TOT	4	44	11	31	352	624	1066
PCT	.4	4.1	1.0	2.9	33.0	58.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	2.0	4.6	9.9	19.9	70.2	151
06&09	.7	2.8	13.1	17.9	69.0	145
12&15	1.8	1.8	12.3	17.5	70.2	114
18&21	1.4	5.7	16.4	27.1	56.4	140
TOT	8	21	71	114	365	550
PCT	1.5	3.8	12.9	20.7	66.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
75/79	.0	.0	.1	.2	.4	.4	.4	.1	16	1.8
70/74	.0	.0	.0	.5	1.2	4.5	4.3	1.6	111	12.2
65/69	.2	.1	.0	.8	3.3	8.4	12.0	10.4	320	35.2
60/64	.0	.0	.0	1.0	5.4	10.1	10.2	9.3	328	36.0
55/59	.0	.0	.0	.0	3.2	4.8	2.6	2.2	117	12.9
50/54	.0	.0	.0	.0	.0	.7	.9	.3	17	1.9
TOTAL	2	1	1	29	124	263	277	219	910	100.0
PCT	.2	.1	.1	2.9	13.8	28.9	30.4	24.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
.1	.6	.1	.0	.2	.2	.1	.3	.0	.1
3.7	3.2	.5	.9	.4	.7	.3	2.3	.0	.2
9.7	5.8	2.6	2.3	3.9	2.8	2.5	5.1	.0	.4
3.3	6.0	4.1	4.0	7.2	4.3	2.1	4.5	.0	.4
.2	.2	1.5	1.2	7.0	2.6	.0	.1	.0	.1
.0	.0	.1	.0	.7	1.0	.1	.0	.0	.0
17.0	15.8	8.9	8.4	19.3	11.8	5.1	12.5	.0	1.3

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	86	79	75	67	58	52	51	66.6	354
06&09	82	76	72	65	57	55	54	65.3	303
12&15	83	72	69	64	56	53	50	63.3	367
18&21	79	72	70	64	57	55	54	63.9	266
TOT	86	76	72	64	57	54	50	64.8	1290

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.9	17.3	30.6	30.2	14.9	77	248
06&09	.9	1.7	14.8	29.1	32.6	20.9	79	230
12&15	.0	.4	12.1	28.1	26.6	32.8	82	256
18&21	.0	2.5	9.0	27.5	33.0	28.0	82	200
TOT	2	27	126	270	284	225	80	934

FEBRUARY

PERIOD: (PRIMARY) 1930-1978
(OVER-ALL) 1880-1978

TABLE 17

AREA 0029 HAWKE BAY
40.2S 177.2E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	N FOG	WD FOG
14/16	.0	.0	.0	.0	.0	.1	.0	.0	.1	.0	2	.0	.3
11/13	.0	.0	.0	.1	.0	.5	.1	.3	.1	.1	10	.1	1.1
9/10	.0	.0	.0	.0	.3	.3	.5	.1	.0	.0	9	.1	1.0
7/8	.0	.0	.0	.0	.5	.9	1.1	.1	.0	.0	21	.6	2.0
6	.0	.0	.0	.1	.5	1.4	.3	.0	.0	.0	18	.0	2.3
5	.0	.0	.0	.5	1.5	1.8	1.1	.0	.0	.0	39	.1	4.8
4	.0	.0	.1	.6	1.5	1.9	.4	.1	.0	.0	37	.5	4.2
3	.0	.0	.0	1.4	2.5	1.6	.3	.0	.0	.0	46	.4	5.4
2	.0	.0	.4	2.3	2.6	2.0	.3	.0	.0	.0	61	.8	6.9
1	.0	.1	1.0	2.9	4.5	2.1	.1	.0	.0	.0	86	1.0	9.8
0	.0	.0	1.0	4.3	6.3	1.6	.0	.0	.0	.0	105	1.1	12.1
-1	.0	.1	1.6	4.7	5.5	.5	.0	.0	.0	.0	99	1.4	11.1
-2	.0	.6	1.9	4.2	2.8	.4	.0	.0	.0	.0	76	.5	9.1
-3	.0	.4	1.6	2.9	1.5	.3	.0	.0	.0	.0	53	.9	5.8
-4	.0	.4	1.8	3.0	.9	.0	.0	.0	.0	.0	46	.8	5.3
-5	.0	.4	1.1	1.6	1.0	.1	.0	.0	.0	.0	34	.0	4.3
-6	.0	.1	.5	1.1	.6	.0	.0	.0	.0	.0	19	.1	2.3
-7/-8	.1	.1	1.5	1.0	.0	.0	.0	.0	.0	.0	22	.3	2.5
-9/-10	.0	.4	.4	.1	.1	.0	.0	.0	.0	.0	8	.1	.9
-11/-13	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	19	103	246	261	123	33	5	2	1	794	70	724
PCT	.1	2.4	13.0	31.0	32.9	15.5	4.2	.6	.3	.1	100.0	8.8	91.2

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.8	.0	.0	.0	.0	1.7
1-2	.2	4.0	.9	.0	.0	.0	5.1
3-4	.0	.7	4.3	.2	.0	.0	5.2
5-6	.0	.0	2.4	.2	.0	.0	2.6
7	.0	.0	1.2	.2	.0	.0	1.5
8-9	.0	.0	.6	.0	.0	.0	.6
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.2	.0	.0	.0	.2
13-16	.0	.0	.0	.2	.2	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	5.6	9.7	1.0	.2	.0	17.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.1	.0	.0	.0	.0	.7
1-2	.1	4.0	2.1	.0	.0	.0	6.2
3-4	.0	1.9	4.7	.1	.0	.0	6.6
5-6	.0	.0	2.0	.7	.0	.0	2.8
7	.0	.0	1.3	.5	.0	.0	1.7
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.2	.0	.2
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.0	10.2	1.3	.3	.0	18.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.2	.0	.0	.0	.0	.7
1-2	.2	3.7	.2	.0	.0	.0	4.1
3-4	.0	1.1	.3	.0	.0	.0	1.4
5-6	.0	.0	.8	.2	.0	.0	1.1
7	.0	.2	.6	.0	.2	.0	1.0
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.2	.7	.0	.0	1.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.2	.2	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.2	2.4	1.4	.2	.0	9.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7
1-2	.2	2.5	.0	.0	.0	.0	2.8
3-4	.0	1.4	2.0	.0	.0	.0	3.4
5-6	.1	.0	1.4	.2	.0	.0	1.6
7	.0	.1	.3	.2	.1	.0	.7
8-9	.0	.0	.2	.1	.0	.0	.3
10-11	.0	.0	.2	.4	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.2	.0	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.9	4.2	.8	.1	.0	10.3

PERIOD: (OVER-ALL) 1963-1978

FEBRUARY

TABLE 18 (CONT)

AREA 0029 HAWKE BAY 40.2S 177.2E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.2	2.0	1.5	.0	.0	.0	3.7
3-4	.0	.5	2.8	.2	.0	.0	3.4
5-6	.2	.6	3.0	.7	.0	.0	4.4
7	.0	.0	.8	4.4	.2	.0	3.5
8-9	.0	.2	.2	.7	.0	.0	1.1
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.6	.0	.0	.6
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.1	8.4	5.1	.2	.0	18.2

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	1.5	.6	.0	.0	.0	2.1
3-4	.0	.3	1.8	.1	.0	.0	2.1
5-6	.0	.1	.7	.0	.0	.0	.7
7	.0	.0	.3	.6	.0	.0	.9
8-9	.0	.0	.2	.7	.0	.0	.9
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	3.7	1.9	.0	.0	7.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	1.3	.3	.0	.0	.0	1.6
3-4	.0	.6	.8	.5	.0	.0	1.9
5-6	.0	.0	.4	.2	.0	.0	.6
7	.0	.0	.3	.2	.0	.0	.6
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.4	.0	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.2	.0	.0	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	2.9	1.1	.0	.0	5.6

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.5	.0	.0	.0	.0	.8	
1-2	.0	1.7	.9	.0	.0	.0	2.6	
3-4	.2	.3	3.5	.0	.0	.0	4.1	
5-6	.0	.0	.8	.7	.0	.0	1.5	
7	.0	.0	.5	.5	.0	.0	1.0	
8-9	.0	.0	.2	.2	.0	.0	.5	
10-11	.0	.0	.1	.0	.2	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	2.5	6.0	1.4	.2	.0	10.7	98.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.3	3.6	.0	.0	.0	.0	7.8	
1-2	.9	20.6	6.5	.0	.0	.0	28.0	
3-4	.2	7.0	20.2	.9	.0	.0	28.3	
5-6	.2	.7	11.4	2.9	.0	.0	15.2	
7	.0	.2	5.6	4.5	.4	.0	10.8	
8-9	.0	.2	1.6	2.0	.0	.0	3.8	
10-11	.0	.0	.9	1.8	.2	.0	2.9	
12	.0	.0	.2	.2	.2	.0	.7	
13-16	.0	.0	.2	.9	.2	.0	1.3	
17-19	.0	.2	.0	.7	.0	.0	.9	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.2	.0	.0	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.6	32.5	46.9	13.9	1.1	.0	100.0	446

PERIOD: (OVER-ALL) 1951-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	8.2	9.8	8.0	5.6	2.4	.2	.4	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	181	4
6-7	.0	.4	4.8	6.8	9.0	4.6	3.0	.2	2.6	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	164	7
8-9	.0	.2	1.0	2.2	5.2	1.0	2.6	.2	.8	.4	.0	.0	.2	.0	.0	.0	.0	.0	.0	69	8
10-11	.0	.2	1.8	.6	1.0	.8	.8	.2	.8	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	37	9
12-13	.0	.0	1.6	.0	.4	.2	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	13	7
>13	.0	.0	.0	.6	1.2	.2	.0	.0	.2	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	14	11
INDET	.6	.2	1.2	1.0	.4	.4	.4	.0	.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	6
TOTAL	8	66	101	96	114	48	35	5	29	13	4	2	3	0	0	0	0	0	0	502	6
PCT	1.6	9.2	20.1	19.1	22.7	9.6	7.0	1.0	5.0	3.0	.8	.4	.6	.0	.0	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	.8	2.2	.6	.0	.0	.0	.0	3.6	.6	.8	4.2	.4	2.5		.0	87.9
NE	2.7	.0	2.6	.0	.0	.0	.0	5.3	1.8	.0	6.9	.0	2.3		.0	83.7
E	2.3	2.6	4.6	.0	.0	.0	.0	9.6	1.3	.0	2.6	.0	2.3		.0	84.2
SE	5.8	2.8	2.1	.0	.0	.0	.0	9.7	2.1	.0	2.3	.0	.0		.0	85.8
S	3.9	3.9	3.0	.0	.0	.0	.0	10.9	2.6	.0	3.3	.0	1.1		.5	81.7
SW	1.7	2.1	.0	.0	.0	.0	.0	3.8	2.6	.0	.3	.0	.2		.2	92.8
W	.7	.7	1.4	.0	.0	.0	.0	2.8	1.1	.0	4.2	.0	.0		.0	91.9
NW	.5	.0	1.0	.0	.0	.0	.0	1.4	.0	.5	3.4	.2	.0		.0	94.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	.0	3.8		.0	92.3
TOT PCT	2.3	1.8	1.7	.0	.0	.0	.0	5.8	1.9	.2	3.6	.1	1.3		.1	87.5
TOT OBS:	1038															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.0	2.0	1.3	.0	.0	.0	.0	6.4	1.3	.0	2.3	.0	1.7		.3	88.0
06&09	2.7	2.3	.8	.0	.0	.0	.0	5.8	1.8	.0	3.8	.0	2.3		.0	86.5
12&15	1.5	1.9	2.7	.0	.0	.0	.0	5.7	.8	1.1	5.3	.0	.8		.0	86.4
18&21	1.6	.8	2.0	.0	.0	.0	.0	4.5	2.4	.0	2.8	.4	.0		.0	89.8
TOT PCT	2.2	1.8	1.7	.0	.0	.0	.0	5.6	1.9	.3	3.6	.1	1.2		.1	87.7
TOT OBS:	1069															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	7.3	8.0	2.1	.2	.0		18.2	13.0	15.9	16.2	15.9	19.3	19.8	19.4	22.7	15.7
NE	.8	5.8	7.6	1.4	.1	.0		15.6	12.8	9.6	22.0	22.6	14.7	15.3	15.4	14.9	15.7
E	.4	3.4	2.9	.1	.0	.0		6.7	10.2	9.9	8.6	9.4	6.1	6.0	4.8	5.3	.0
SE	.5	4.6	4.4	.4	.1	.1		10.1	11.6	9.9	13.1	12.1	11.9	9.6	5.1	6.8	12.8
S	1.2	4.2	6.4	2.4	.4	.1		16.6	13.7	17.3	18.9	18.8	16.7	15.7	18.0	11.1	20.1
SW	.7	3.2	5.2	2.3	.9	.2		12.5	16.8	18.5	7.8	8.0	9.6	9.7	13.2	13.8	17.5
W	.3	2.8	2.7	.9	.1	.0		6.7	12.9	5.8	3.5	3.7	5.5	4.5	11.2	12.5	5.5
NW	.3	4.9	5.2	.6	.3	.0		11.3	12.5	9.9	8.8	8.6	14.0	14.3	11.8	10.8	11.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.2							2.2	.0	3.3	1.0	1.1	2.2	3.2	1.1	2.1	.9
TOT OBS	95	521	578	137	27	5	1363		12.9	271	99	184	136	277	89	194	113
TOT PCT	7.0	38.2	42.4	10.1	2.0	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.3	9.8	4.5	.6	.1		18.2	13.0	15.9	17.3	19.7	20.1
NE	2.6	8.6	3.9	.4	.0		15.6	12.8	12.9	19.2	15.3	15.2
E	2.0	4.1	.5	.1	.0		6.7	10.2	9.5	8.0	5.7	3.3
SE	2.0	6.2	1.7	.1	.1		10.1	11.6	10.7	12.0	8.5	9.0
S	3.5	8.0	3.9	1.0	.2		16.6	13.7	17.7	17.9	16.3	14.4
SW	1.9	5.1	3.5	1.7	.3		12.5	16.8	15.7	8.7	10.6	13.1
W	1.6	2.9	2.0	.3	.0		6.7	12.9	5.2	4.5	7.7	9.9
NW	2.8	5.6	2.5	.5	.1		11.3	12.5	9.6	10.9	13.7	11.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.2						2.2	.0	2.7	1.6	2.7	1.6
TOT OBS	298	684	307	63	11	1363		12.9	370	320	366	307
TOT PCT	21.9	50.2	22.5	4.6	.8		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.7	5.7	34.3	45.4	10.0	1.6	.3	12.8	100.0	370
06&09	1.6	3.4	38.1	42.8	10.3	3.1	.6	13.5	100.0	320
12&15	2.7	3.6	39.3	42.1	11.5	.8	.0	12.8	100.0	366
18&21	1.6	6.5	41.7	38.8	8.1	2.6	.7	12.4	100.0	307
TOT	30	65	521	578	137	27	5	12.9		1363
PCT	2.2	4.8	38.2	42.4	10.1	2.0	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	6.9	3.8	4.4	1.4		3.4
NE	6.4	1.9	5.5	2.4		4.2
E	1.7	1.1	2.7	2.1		5.2
SE	1.7	1.2	2.7	3.1		5.5
S	3.7	2.1	6.6	3.7		5.0
SW	4.8	2.5	4.8	3.7		4.6
W	2.5	1.7	1.9	.4		3.6
NW	5.0	1.7	2.4	.9		3.0
VAR	.0	.0	.0	.0		.0
CALM	1.7	.1	1.0	.5		3.2
TOT OBS	238	112	221	120	691	4.3
TOT PCT	34.4	16.2	32.0	17.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.3	.4	1.4	.5	.6	.1	.1	.1	13.0	
NE	.0	.0	.2	.9	1.8	.8	.4	.1	*	.0	11.8	
E	.0	.0	.4	1.2	1.6	.5	.1	.0	.0	.0	3.8	
SE	.1	.1	.3	1.7	2.1	.5	.2	.0	.0	.0	3.7	
S	.0	.4	.7	1.7	2.6	2.6	.4	.0	.0	.0	7.5	
SW	.0	.1	.8	1.2	2.8	1.8	.1	.0	.0	.0	9.1	
W	.0	.0	.0	.1	.4	.3	.1	.1	.1	.1	5.2	
NW	.0	.0	*	.1	.5	.2	.3	.0	*	.0	8.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.1	.3	.4	.1	.0	.0	.0	2.2	
TOT OBS	1	5	18	52	93	55	16	3	2	2	444	691
TOT PCT	.1	.7	2.6	7.5	13.5	8.0	2.3	.4	.3	.3	64.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.3	.6	.7	.7	.7	.7	.7	.7
* OR >5000	.7	1.0	1.1	1.1	1.1	1.1	1.1	1.1
* OR >3500	2.7	3.1	3.4	3.4	3.4	3.4	3.4	3.4
* OR >2000	9.2	11.0	11.3	11.3	11.3	11.3	11.3	11.3
* OR >1000	20.1	24.1	24.6	24.6	24.6	24.6	24.6	24.6
* OR >600	24.8	30.6	32.0	32.0	32.0	32.0	32.0	32.0
* OR >300	25.4	31.9	34.6	34.6	34.6	34.6	34.6	34.6
* OR >150	25.4	31.9	35.1	35.1	35.1	35.1	35.1	35.1
* OR > 0	25.4	32.0	35.3	35.3	35.3	35.3	35.3	35.3
TOTAL	179	226	249	249	249	249	249	249

TOTAL NUMBER OF OBS: 706 PCT FREQ NH <5/8: 64.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
17.5	21.1	11.6	6.9	7.2	6.5	6.6	8.7	13.8	.1	739

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	NO PCP	.0	.0	.1	.0	.1	.0	.1	.0	.0	.0	.3	
	TOT %	.1	.0	.1	.0	.1	.0	.1	.0	.0	.0	.4	
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	NO PCP	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.3	
	TOT %	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.3	
	PCP	.0	.1	.2	.2	.5	.1	.0	.0	.0	.0	1.2	
2<5	NO PCP	.3	.1	.1	.2	.6	.4	.0	.0	.0	.0	1.7	
	TOT %	.3	.3	.3	.5	1.1	.5	.0	.0	.0	.0	2.9	
	PCP	.3	.5	.5	.6	1.0	.2	.1	.1	.0	.0	3.4	
5<10	NO PCP	3.7	3.8	2.0	2.9	2.7	2.4	1.2	1.2	.0	.2	20.2	
	TOT %	4.1	4.4	2.5	3.5	3.7	2.6	1.3	1.3	.0	.2	23.6	
	PCP	.2	.2	.0	.2	.3	.2	.1	.1	.0	.0	1.3	
10+	NO PCP	12.7	10.9	4.3	6.2	10.8	10.5	5.3	8.7	.0	2.3	71.6	
	TOT %	12.8	11.1	4.3	6.4	11.1	10.6	5.4	8.8	.0	2.3	72.9	
	TOT OBS												1039
	TOT PCT	17.3	15.9	7.3	10.4	15.9	13.8	6.8	10.1	.0	2.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.0	.1	.0	.1	.0	.0	.0	.0		.2	
	11-21	.1	.0	.0	.0	.0	.0	.1	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.0	.1	.0	.1	.0	.1	.0	.0	.0	.4	
	0-3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	4-10	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.3	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	4-10	.0	*	.1	.1	.1	.0	.0	.0	.0		.5	
	11-21	.1	.1	.2	.3	.3	.1	.0	.0	.0		1.0	
	22+	.2	.1	.0	.1	.7	.4	.0	.0	.0		1.5	
	TOT %	.3	.3	.3	.5	1.1	.5	.0	.0	.0	.0	3.0	
	0-3	.3	.1	.0	.1	.2	.1	.1	.0	.0	.2	1.0	
5<10	4-10	1.1	1.8	.9	1.7	1.1	.5	.7	.8	.0		8.7	
	11-21	2.2	2.1	1.5	1.4	2.1	1.2	.5	.6	.0		11.6	
	22+	.8	.5	.1	.2	.5	.8	.0	.2	.0		3.1	
	TOT %	4.4	4.5	2.5	3.4	4.0	2.6	1.3	1.7	.0	.2	24.5	
	0-3	.5	.5	.4	.4	.9	.6	.2	.4	.0	2.2	6.2	
10+	4-10	6.2	3.9	2.3	2.9	4.3	3.1	2.4	3.9	.0		29.0	
	11-21	4.9	5.6	1.4	2.8	4.2	4.5	1.9	4.1	.0		29.4	
	22+	1.3	.9	.0	.3	1.4	2.2	.8	.5	.0		7.3	
	TOT %	12.8	10.9	4.2	6.3	10.8	10.4	5.3	8.9	.0	2.2	71.9	
	TOT OBS												1067
	TOT PCT	17.6	15.8	7.2	10.2	16.0	13.5	6.7	10.5	.0	2.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.5	3.2	8.4	10.0	8.4	1.1	.0	.5	.5	32.6	67.4	190
06&09	.0	1.0	2.1	6.3	10.9	5.7	1.0	1.6	.0	.5	29.2	70.8	192
12&15	.6	.0	1.9	6.5	11.0	9.0	3.2	.0	.0	.0	32.3	67.7	155
18&21	.0	1.1	2.7	7.4	19.7	8.0	3.7	.0	.5	.5	43.6	56.4	188
TOT	1	5	18	52	94	56	16	3	2	3	250	475	725
PCT	.1	.7	2.5	7.2	13.0	7.7	2.2	.4	.3	.4	34.5	65.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.3	1.0	4.2	27.2	67.3	309
06&09	.0	.0	.0	4.1	23.2	72.7	267
12&15	.0	.7	.0	1.9	25.6	71.9	270
18&21	.0	.4	.0	1.6	20.9	77.1	253
TOT	0	4	3	33	268	791	1099
PCT	.0	.4	.3	3.0	24.4	72.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NM >4/8),BY HOUR

HOUR (GMT)	<150 <5OYD	<600 <1	<1000 <5	1000+ AND5+	NM <5/8 AND 5+	TOTAL OBS
00&03	.0	3.3	14.1	19.6	66.3	184
06&09	.0	3.2	10.1	20.2	69.7	188
12&15	.7	2.7	10.9	23.8	65.3	147
18&21	.0	3.7	11.2	32.6	56.1	187
TOT	1	23	82	170	454	706
PCT	.1	3.3	11.6	24.1	64.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.1	.2	.5	.0	.0	8	.8
70/74	.0	.2	.0	.7	1.3	2.1	2.4	.9	76	7.6
65/69	.0	.2	.0	1.4	2.3	8.3	11.5	8.2	321	31.9
60/64	.0	.1	.0	1.4	6.3	11.0	14.1	9.4	426	42.3
55/59	.0	.0	.2	.4	2.7	5.0	3.5	3.1	149	14.8
50/54	.0	.0	.0	.0	.1	1.1	1.0	.3	25	2.5
45/49	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
TOTAL	0	5	2	40	130	282	327	220	1006	100.0
PCT	.0	.5	.2	4.0	12.9	28.0	32.5	21.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.3	.2	.1	*	.1	.0	.0	.0	.0	.1
2.1	1.6	.7	.3	.3	.2	.6	1.3	.0	.3
6.6	7.2	2.0	1.7	4.0	1.5	2.7	5.4	.0	.8
7.6	6.5	3.3	6.3	6.7	5.4	2.1	3.7	.0	.9
.6	1.1	.8	1.7	4.5	4.7	1.0	.1	.0	.1
.1	.0	.0	.0	.6	1.4	.2	.2	.0	.0
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
17.3	16.6	6.9	10.1	16.3	13.2	6.6	10.7	.0	2.2

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	79	75	72	65	58	54	52	65.0	361
06&09	75	73	70	64	56	53	50	63.7	314
12&15	72	70	68	63	55	52	49	62.3	366
18&21	75	71	69	63	56	54	52	63.0	296
TOT	79	73	70	64	56	53	49	63.5	1337

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	9.2	18.7	26.5	30.0	15.5	77	283
06&09	.0	4.5	14.0	28.1	35.1	18.2	80	242
12&15	.0	2.2	9.7	28.5	33.9	25.6	82	277
18&21	.0	2.5	7.9	27.1	35.8	26.7	82	240
TOT	0	49	133	287	350	223	80	1042

MARCH

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1863-1977

AREA 0029 HAWKE BAY
40.4S 177.2E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
11/13	.0	.0	.0	.1	.1	.0	.1	.0	3	.0	.4
9/10	.0	.0	.0	.1	.2	.2	.1	.1	7	.0	.8
7/8	.0	.0	.0	.5	.6	.8	.2	.0	18	.0	2.1
6	.0	.0	.0	.4	.9	.2	.0	.0	13	.0	1.5
5	.0	.0	.0	1.3	1.5	1.2	.2	.0	36	.2	4.0
4	.0	.0	.0	1.3	1.9	.8	.1	.0	35	.1	4.0
3	.0	.0	.1	1.4	2.5	1.2	.0	.0	44	.2	4.9
2	.0	.0	.5	2.5	4.8	1.3	.1	.0	78	.2	8.9
1	.0	.0	.8	3.8	4.5	1.2	.1	.0	88	.5	9.9
0	.0	.0	1.8	6.5	6.0	.9	.1	.0	130	.8	14.5
-1	.0	.5	.8	5.5	3.8	.5	.1	.0	95	.4	10.8
-2	.0	.6	1.9	4.9	2.1	.0	.0	.0	81	.6	8.9
-3	.0	.1	2.0	3.2	1.6	.0	.0	.0	59	.5	6.5
-4	.0	1.1	2.0	2.1	1.1	.4	.0	.0	56	.2	6.3
-5	.2	.5	1.2	2.4	.6	.1	.0	.0	42	.2	4.7
-6	.0	.6	.9	.6	.2	.0	.0	.0	20	.1	2.2
-7/-8	.4	.2	1.5	.4	.0	.0	.0	.0	21	.0	2.5
-9/-10	.0	.8	.9	.4	.0	.0	.0	.0	18	.0	2.1
-11/-13	.0	.4	.4	.0	.0	.0	.0	.0	6	.0	.7
TOTAL	5	40	126	316	276	75	12	1	851	35	816
PCT	.6	4.7	14.8	37.1	32.4	8.8	1.4	.1	100.0	4.1	95.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.6	.0	.0	.0	.0	.9
1-2	.3	3.8	.7	.0	.0	.0	4.8
3-4	.0	2.3	2.7	.6	.0	.0	5.6
5-6	.0	.3	1.8	.4	.0	.0	2.6
7	.0	.2	.3	1.0	.0	.0	1.5
8-9	.0	.1	.2	.0	.1	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.1	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	7.3	5.9	2.0	.1	.0	16.0

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	*	.6	.0	.0	.0	.0	.7
1-2	*	3.7	1.4	.0	.0	.0	5.1
3-4	.0	1.2	4.3	.0	.0	.0	5.5
5-6	.0	.0	2.5	.3	.0	.0	2.8
7	.0	.2	.6	.7	.0	.0	1.5
8-9	.0	*	.0	.8	.0	.0	.8
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	5.7	8.7	1.7	.2	.0	16.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	1.1	.0	.0	.0	.0	1.2
1-2	.0	1.3	.3	.0	.0	.0	1.7
3-4	.0	.9	1.2	.0	.0	.0	2.1
5-6	.2	.1	1.1	.0	.0	.0	1.4
7	.0	.0	.1	.2	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.5	2.7	.2	.0	.0	6.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.2	.0	.0	.0	.0	1.4
1-2	.0	2.6	.6	.0	.0	.0	3.3
3-4	.0	1.0	2.3	.0	.0	.0	3.3
5-6	.0	.4	.7	.0	.0	.0	1.1
7	.0	.0	.5	*	.0	.0	.5
8-9	.0	.2	.0	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.2	.2
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.0	*	.0	.2	10.0	

PERIOD: (OVER-ALL) 1963-1977

MARCH

TABLE 18 (CONT)

AREA 0029 HAWKE BAY 40.4S 177.2E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.5	.0	.0	.0	.0	1.5
1-2	.0	2.9	.3	.0	.0	.0	3.2
3-4	.0	1.2	2.4	.2	.0	.0	4.0
5-6	.0	.3	2.4	.7	.0	.0	3.4
7	.0	.0	1.4	.3	.0	.0	1.7
8-9	.0	.1	.0	.6	.0	.0	.7
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.1	.3	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.1	.0	.0	.1
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.3	.3
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	5.2	6.8	2.3	.6	.3	16.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.2	.0	.0	.0	.0	.8
1-2	.0	2.8	1.0	.0	.0	.0	3.8
3-4	.0	.9	2.9	.4	.0	.0	4.2
5-6	.0	.4	1.5	*	.0	.0	2.0
7	.0	.0	.3	.4	.9	.0	1.7
8-9	.0	.2	.0	.2	.0	.0	.4
10-11	.0	.0	.0	.4	.2	.0	.6
12	.0	.0	.2	.2	.0	.0	.4
13-16	.0	.0	.2	.2	.1	.0	.5
17-19	.0	.0	.2	*	.1	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	*	.0	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.4	.4
41-48	.0	.0	.0	.0	.0	.1	.1
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.4	6.3	1.9	1.3	.5	15.0

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2
1-2	.2	2.1	.3	.0	.0	.0	2.6
3-4	.0	.8	.9	.0	.0	.0	1.7
5-6	.0	.2	.7	.6	.0	.0	1.4
7	.0	.0	.5	.1	.0	.0	.7
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.0	2.4	.9	.0	.0	6.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	*	.2	.0	.0	.0	.0	.2	
1-2	.2	1.6	.1	.0	.0	.0	1.8	
3-4	.0	1.5	2.6	.0	.0	.0	4.1	
5-6	.0	.4	1.5	.2	.0	.0	2.1	
7	.0	.0	.6	*	.2	.0	.9	
8-9	.0	.0	.0	.0	*	.0	*	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	*	.0	.0	.0	*	
13-16	.0	.0	.0	.0	.2	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	3.7	4.9	.2	.4	.0	9.4	96.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.9	4.5	.0	.0	.0	.0	11.3	
1-2	.9	20.6	4.6	.0	.0	.0	26.2	
3-4	.0	9.7	19.1	1.1	.0	.0	29.9	
5-6	.4	2.2	11.9	2.2	.0	.0	16.7	
7	.0	.4	4.3	2.8	1.1	.0	8.6	
8-9	.0	.7	.2	1.7	.2	.0	2.8	
10-11	.0	.0	.2	.4	.2	.0	.7	
12	.0	.0	.4	.4	.0	.0	.7	
13-16	.0	.0	.2	.2	.7	.0	1.1	
17-19	.0	.0	.2	.2	.4	.0	.7	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.2	.0	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.4	.4	
41-48	.0	.0	.0	.0	.0	.6	.6	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								538
TOT PCT	8.2	38.1	41.1	9.1	2.6	.9	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	7.8	13.3	5.2	3.3	1.3	.3	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	206	4
6-7	.0	.5	3.8	8.3	7.4	3.6	1.7	1.3	.6	.3	.0	.6	.0	.0	.0	.0	.0	.0	.0	179	7
8-9	.0	1.3	.5	2.8	3.6	4.1	2.0	1.4	.6	.3	.5	.3	.2	.0	.0	.0	.0	.0	.0	112	8
10-11	.0	1.7	.2	1.7	2.7	.8	1.3	.2	.6	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	65	7
12-13	.0	.0	1.3	.9	.2	.3	.6	.0	.2	.2	.2	.5	.2	.3	.0	.0	.0	.0	.0	33	12
>13	.0	.0	.0	.6	.3	.2	.2	.0	.3	.0	.2	.3	.2	.0	.5	.0	.0	.0	.0	17	18
INDET	1.1	.0	.5	2.0	.9	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	5
TOTAL	10	72	124	198	117	67	40	22	16	6	5	11	4	2	3	0	0	0	0	937	7
PCT	1.0	11.3	19.5	21.7	18.4	10.5	6.3	3.5	2.5	.9	.8	1.7	.6	.3	.5	.0	.0	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1868-1977

AREA 0029 HAWKE BAY
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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	2.0	.7	.0	.0	.0	.0	.0	2.7	2.7	.0	1.7	.0	2.4		.0	90.6
NE	5.9	.0	.4	.0	.0	.0	.0	6.4	1.3	.4	7.2	.0	3.2		.0	81.6
E	.0	3.2	8.0	.0	.0	.0	.0	11.2	1.6	.8	4.8	.0	2.8		.0	78.9
SE	9.0	8.6	7.1	.0	.0	.0	.0	24.7	1.6	.0	3.1	.0	.8		1.6	68.2
S	9.9	4.3	4.7	.0	.0	.0	.0	17.9	3.1	.0	3.4	.0	1.6		.0	74.1
SW	7.7	8.6	2.9	.0	.0	.0	.0	18.2	6.7	.0	2.1	.0	.0		.0	73.0
W	2.6	1.6	.0	.0	.0	.0	.0	4.2	.0	.0	.0	.0	.0		.0	95.8
NW	3.9	.0	.0	.0	.0	.0	.0	3.9	1.2	.0	2.4	.0	2.4		.0	90.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	6.7	.0		.0	86.7
TOT PCT	5.4	3.0	2.4	.0	.0	.0	.0	10.4	2.5	.1	3.1	.1	1.7		.1	82.0
TOT OBS:	893															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.8	3.3	1.9	.0	.0	.0	.0	10.0	1.9	.0	3.7	.0	3.3		.0	81.1
06&09	5.3	2.2	3.1	.0	.0	.0	.0	10.2	2.2	.0	.9	.0	2.2		.4	84.0
12&15	3.5	4.3	1.3	.0	.0	.0	.0	9.1	1.7	.4	5.2	.4	1.3		.0	81.7
18&21	7.5	1.5	3.0	.0	.0	.0	.0	11.1	4.0	.0	3.5	.0	.5		.5	80.4
TOT PCT	5.2	2.9	2.3	.0	.0	.0	.0	10.1	2.6	.1	3.4	.1	1.9		.2	81.8
TOT OBS:	924															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.0	7.1	7.2	1.4	.0	.0		16.8	11.7	17.7	18.4	14.4	14.5	17.4	25.0	11.5	18.8
NE	1.2	6.9	5.3	1.0	.1	.0		14.5	11.2	13.9	20.0	19.0	18.5	13.7	14.8	5.8	15.1
E	.3	4.2	2.9	.1	.0	.0		7.5	10.3	8.5	8.8	12.0	5.8	5.9	3.9	9.2	3.2
SE	.1	3.6	2.1	.8	.3	.0		6.9	13.2	4.2	7.5	7.8	9.6	8.4	9.5	5.4	5.4
S	.9	5.8	7.0	2.4	1.2	.0		17.2	15.1	19.8	22.8	19.1	18.8	12.5	11.6	17.9	16.4
SW	.4	4.3	4.3	2.3	1.8	.0		13.2	17.5	14.6	8.8	14.9	5.8	12.7	9.2	21.1	11.8
W	.8	3.0	3.9	1.2	.1	.0		8.5	13.1	7.7	7.5	4.9	5.8	10.5	8.1	13.7	8.1
NW	.8	5.2	5.9	2.1	.1	.2		13.7	14.0	12.1	6.3	7.3	18.3	15.7	16.5	15.5	19.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.5							1.5	.0	1.6	.0	.6	.8	3.2	1.4	.0	2.2
TOT OBS	83	469	439	134	42	2	1169		13.2	245	80	158	120	259	71	152	93
TOT PCT	7.1	40.1	37.6	11.5	3.6	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.4	9.9	3.2	.3	.0		16.8	11.7	17.8	15.3	19.1	14.3
NE	3.3	8.6	2.2	.3	.1		14.5	11.2	15.4	18.8	13.9	9.3
E	2.1	4.4	.9	.1	.0		7.5	10.3	8.5	9.4	5.5	6.9
SE	2.1	2.8	1.3	.6	.1		6.9	13.2	5.0	8.5	8.6	5.4
S	2.7	7.9	5.1	1.2	.3		17.2	15.1	20.5	19.0	12.3	17.3
SW	2.2	4.8	3.5	2.2	.4		13.2	17.5	13.2	11.0	11.9	17.6
W	2.2	3.4	2.6	.4	.0		8.5	14.1	7.6	5.3	10.0	11.5
NW	2.3	6.6	4.0	.7	.2		13.7	14.0	10.7	12.1	15.9	16.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.5						1.5	.0	1.2	.7	2.8	.8
TOT OBS	255	566	268	68	12	1169		13.2	325	278	321	245
TOT PCT	21.8	48.4	22.9	5.8	1.0		100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1932-1977
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.2	6.8	38.2	37.2	12.6	3.4	.6	13.4	100.0	325
06&09	.7	6.5	42.4	34.2	12.9	3.2	.0	13.3	100.0	278
12&15	2.8	3.4	41.7	38.6	10.9	2.5	.0	12.8	100.0	321
18&21	.8	6.1	38.0	40.4	9.0	5.7	.0	13.4	100.0	245
TOT	17	66	469	439	134	42	2	13.2		1169
PCT	1.5	5.6	40.1	37.6	11.5	3.6	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	7.1	1.6	2.8	3.1		3.7
NE	3.5	1.3	4.8	1.8		4.6
E	1.3	1.4	3.6	1.6		5.1
SE	1.2	.3	1.5	4.8		6.3
S	2.6	3.0	6.8	5.7		5.6
SW	4.3	1.7	6.1	5.4		5.2
W	4.6	1.8	2.6	.7		3.1
NW	3.9	2.0	4.4	1.4		4.0
VAR	.0	.0	.0	.0		.0
CALM	.9	.6	.2	.2		2.5
TOT OBS	159	74	177	132	542	4.7
TOT PCT	29.3	13.7	32.7	24.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	1.7	1.3	.6	.5	.0	.2	.4	9.8	
NE	.2	.0	.0	.9	1.5	.6	.6	.0	.0	.2	7.4	
E	.0	.0	.3	.3	1.8	.6	.7	.0	.2	.2	3.7	
SE	.0	.0	.6	2.8	1.4	.6	*	.0	.1	.0	1.8	
S	.0	.0	.5	3.9	3.1	2.3	1.1	.0	.1	.0	7.1	
SW	.0	.0	.6	5.0	3.7	1.0	.2	.0	.0	.0	7.0	
W	.0	.0	.0	.6	.8	.5	.0	.0	.0	.4	7.5	
NW	.0	.0	.0	.0	1.8	.2	.8	.0	.4	.2	8.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	1.7	
TOT OBS	1	0	11	83	84	36	21	0	5	7	294	542
TOT PCT	.2	.0	2.0	15.3	15.5	6.6	3.9	.0	.9	1.3	54.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1
= OR >3000	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1
= OR >1500	5.5	5.7	5.9	5.9	5.9	5.9	5.9	5.9
= OR >2000	10.9	12.2	12.3	12.3	12.3	12.3	12.3	12.3
= OR >1000	24.0	27.0	27.9	28.1	28.1	28.1	28.1	28.1
= OR >600	31.8	39.0	41.7	42.0	42.2	42.6	42.6	42.6
= OR >300	32.4	40.3	43.5	44.0	44.2	44.5	44.5	44.5
= OR >150	32.4	40.3	43.5	44.0	44.2	44.5	44.5	44.5
= OR > 0	32.4	40.4	43.6	44.2	44.4	44.7	44.7	44.7
TOTAL	181	226	244	247	248	250	250	250

TOTAL NUMBER OF OBS: 559 PCT FREQ NH <5/8: 55.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
13.8	16.8	9.3	7.5	6.7	6.0	9.5	10.6	19.6 .2	601

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	*	.2	.1	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.2	.1	.0	.0	.0	.0	.3	
1/2<1	PCP	.0	.1	.1	.0	.1	.1	.0	.0	.0	.0	.4	
	NO PCP	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.2	
	TOT %	.0	.2	.2	.0	.1	.1	.0	.0	.0	.1	.7	
1<2	PCP	.0	.0	.0	.1	.4	*	.0	.0	.0	.0	.6	
	NO PCP	.1	.1	.0	.1	.2	.0	.0	.1	.0	.0	.4	
	TOT %	.1	.1	.0	.2	.6	*	.0	.1	.0	.0	1.0	
2<5	PCP	.2	.0	.2	.3	1.0	.4	.0	.0	.0	.0	2.1	
	NO PCP	.0	.0	.0	.1	.1	.2	.0	.1	.0	.0	.6	
	TOT %	.2	.0	.2	.4	1.1	.6	.0	.1	.0	.0	2.7	
5<10	PCP	.0	.7	.2	1.0	.8	.7	.3	.3	.0	.0	4.0	
	NO PCP	4.1	2.9	.9	1.6	2.8	1.7	1.2	2.9	.0	.4	18.5	
	TOT %	4.1	3.7	1.1	2.5	3.6	2.4	1.5	3.2	.0	.4	22.5	
10+	PCP	.8	.0	.3	.4	.7	1.1	.1	.2	.0	.0	3.0	
	NO PCP	12.0	9.3	5.3	3.6	11.7	9.0	7.1	10.6	.0	1.1	69.8	
	TOT %	12.4	9.3	5.6	4.0	12.4	10.1	7.1	10.9	.0	1.1	72.8	
	TOT OBS												894
	TOT PCT	16.8	13.2	7.0	7.1	18.0	13.4	8.6	14.2	.0	1.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	*	.1	.1	.0	.0	.0		.2	
	TOT %	.0	.0	.0	*	.2	.1	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.1	.2	.0	.0	.1	.0	.0	.0		.3	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0		.1	
	TOT %	.0	.2	.2	.0	.1	.1	.0	.0	.0	.1	.6	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.0	.1	.1	.0	.0	.0	.0		.2	
	11-21	.1	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	22+	.0	.0	.0	.1	.5	*	.0	.0	.0		.6	
	TOT %	.1	.1	.0	.2	.6	*	.0	.1	.0	.0	1.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.1	.1	.1	.0	.0	.0		.3	
	11-21	.1	.1	.2	.2	.1	.0	.0	.0	.0		.6	
	22+	.1	.0	.1	.1	.9	.5	.0	.1	.0		1.8	
	TOT %	.2	.1	.3	.4	1.1	.6	.0	.1	.0	.0	2.8	
5<10	0-3	.5	.4	.0	.0	.0	.2	.1	.1	.0	.4	1.6	
	4-10	1.3	1.8	.9	.8	1.1	.3	.3	1.0	.0		7.6	
	11-21	1.9	1.2	.2	.6	1.7	.7	.2	1.3	.0		7.9	
	22+	.5	.5	.0	1.0	.8	1.1	.8	.7	.0		5.4	
	TOT %	4.2	3.9	1.1	2.4	3.6	2.3	1.4	3.1	.0	.4	22.5	
10+	0-3	.7	1.0	.2	.2	1.0	*	.8	.8	.0	1.1	5.8	
	4-10	6.0	4.5	2.9	2.5	4.1	4.0	2.4	4.2	.0		30.8	
	11-21	5.3	4.0	2.2	1.1	3.0	3.5	3.1	4.2	.0		28.4	
	22+	.8	.6	.0	.1	1.8	2.3	.5	1.6	.0		7.8	
	TOT %	12.8	10.1	5.4	3.8	12.0	9.9	6.9	10.8	.0	1.1	72.8	
	TOT OBS												929
	TOT PCT	17.3	14.3	7.0	6.9	17.5	13.0	8.3	14.0	.0	1.6	100.0	

APRIL

PERIOD: (PRIMARY) 1932-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	1.3	15.4	16.7	6.4	3.8	.0	.6	1.3	45.5	54.5	156
06&09	.0	.0	3.4	14.1	16.1	8.1	2.0	.0	1.3	2.0	47.0	53.0	149
12&15	.8	.0	1.5	13.6	8.3	4.5	3.0	.0	1.5	.8	34.1	65.9	132
18&21	.0	.0	1.4	14.3	19.3	5.7	5.7	.0	.0	.7	47.1	52.9	140
TOT	1	0	11	83	88	36	21	0	5	7	252	325	577
PCT	.2	.0	1.9	14.4	15.3	6.2	3.6	.0	.9	1.2	43.7	56.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.7	1.1	1.8	3.2	26.1	67.1	280
06&09	.0	.4	.9	2.6	20.8	75.3	231
12&15	.4	.4	.8	2.1	23.5	72.8	243
18&21	.0	.5	.0	2.9	17.5	79.1	206
TOT	3	6	9	26	214	702	960
PCT	.3	.6	.9	2.7	22.3	73.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	2.6	18.8	27.3	53.9	154
06&09	.0	3.4	17.9	29.0	53.1	145
12&15	.8	3.2	16.8	19.2	64.0	125
18&21	.0	[illegible]	17.0	31.9	51.1	135
TOT	1	[illegible]	99	151	309	559
PCT	.2	2.[illegible]	17.7	27.0	55.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.3	.0	.1	.4	.2	10	1.1
65/69	.0	.0	.0	.5	2.3	4.1	3.7	3.4	128	14.1
60/64	.0	.2	.1	1.2	6.9	14.0	14.0	10.1	423	46.5
55/59	.0	.0	.3	1.9	4.9	11.5	9.0	5.2	294	32.3
50/54	.0	.0	.0	.0	2.0	1.6	1.3	.5	52	5.7
45/49	.0	.0	.0	.0	.0	.2	.0	.1	3	.3
TOTAL	0	2	4	31	147	287	261	178	910	100.0
PCT	.0	.2	.4	3.4	16.2	31.5	28.7	19.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.6	.3	.0	.0	.0	.0	.0	.2	.0	.0
4.0	2.6	1.4	.3	1.0	1.0	1.2	2.7	.0	.1
8.1	7.7	4.2	2.5	6.3	4.3	4.6	7.5	.0	1.3
3.4	3.1	2.1	3.2	8.1	7.3	2.4	2.6	.0	.0
.0	.7	.1	.7	1.2	1.7	.9	.4	.0	.0
.1	.1	.0	.0	.0	.0	.1	.1	.0	.0
16.2	14.5	7.9	6.5	16.6	14.2	9.1	13.5	.0	1.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	71	69	62	55	51	48	61.8	333
06&09	70	68	66	61	54	52	52	60.9	278
12&15	70	68	65	60	53	50	48	60.0	321
18&21	73	68	66	60	54	51	49	59.9	246
TOT	73	70	67	61	54	51	48	60.7	1178

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.4	21.5	33.6	23.0	15.5	77	265
06&09	.0	3.1	15.2	30.4	29.5	21.9	80	224
12&15	.0	2.0	16.5	28.2	33.1	20.2	80	248
18&21	.0	5.0	10.0	32.5	29.5	23.0	80	200
TOT	0	39	152	292	268	186	79	937

APRIL

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1868-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
11/13	.0	.0	.0	.0	.0	.2	.0	.2	2	.0	.3
9/10	.0	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
7/8	.0	.0	.0	.0	.2	.5	.2	.0	5	.0	.8
6	.0	.0	.0	.0	.3	.2	.2	.2	5	.0	.8
5	.0	.0	.0	.2	1.7	1.5	.0	.0	22	.0	3.3
4	.0	.0	.0	.0	2.6	1.2	.2	.0	26	.2	3.8
3	.0	.0	.0	.2	1.1	1.8	.3	.0	22	.2	3.2
2	.0	.0	.2	.8	4.4	2.3	.2	.0	51	.2	7.6
1	.0	.0	.2	1.7	4.7	1.4	.2	.0	53	.6	7.4
0	.0	.0	.5	4.8	5.4	1.8	.2	.0	84	.8	12.0
-1	.0	.2	.8	2.9	4.8	1.7	.0	.0	68	.3	10.0
-2	.0	.2	1.2	4.2	5.4	1.1	.0	.0	80	.6	11.5
-3	.0	.5	1.2	3.8	3.6	.6	.0	.0	64	.5	9.2
-4	.0	.2	1.2	3.9	2.4	.3	.0	.0	53	.6	7.4
-5	.0	.5	2.0	4.2	1.5	.0	.0	.0	54	.5	7.7
-6	.0	.0	1.2	1.4	.6	.0	.0	.0	21	.2	3.0
-7/-8	.2	.0	1.8	3.0	.0	.2	.0	.0	34	.0	5.1
-9/-10	.0	.5	.6	.5	.3	.2	.0	.0	13	.0	2.0
-11/-13	.0	.0	.2	.2	.0	.0	.0	.0	2	.0	.3
TOTAL	1		72		258		10			29	632
		12		209		97		2	661		
PCT	.2	1.8	10.9	31.6	39.0	14.7	1.5	.3	100.0	4.4	95.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.5	.0	.0	.0	.0	1.3
1-2	.4	2.9	.8	.0	.0	.0	4.1
3-4	.0	1.3	2.4	.2	.0	.0	4.0
5-6	.0	.2	1.1	.8	.0	.0	2.1
7	.0	.0	.5	.2	.0	.0	.7
8-9	.0	.0	.8	.2	.0	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	5.0	5.8	1.3	.0	.0	13.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.6	.0	.0	.0	.0	1.1
1-2	.7	1.8	1.1	.0	.0	.0	3.6
3-4	.2	1.8	1.8	.3	.0	.0	4.1
5-6	.0	.0	1.6	.1	.0	.0	1.6
7	.0	.2	.0	.3	.0	.0	.5
8-9	.0	.2	.1	.4	.0	.0	.8
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.2	.0	.2
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	4.6	4.6	1.5	.2	.0	12.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.0	2.3	.0	.0	.0	.0	2.3
3-4	.0	1.4	1.0	.0	.0	.0	2.4
5-6	.0	.0	.2	.2	.0	.0	.4
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.5	1.9	.2	.0	.0	6.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.2	1.6	.1	.0	.0	.0	1.9
3-4	.0	1.0	.9	.1	.0	.0	2.0
5-6	.0	.0	1.6	.7	.0	.0	2.2
7	.0	.0	.0	.0	.2	.0	.2
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.1	.2	.2	.6	.0	1.1
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.2	2.8	1.1	.8	.0	8.2

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0029 HAWKE BAY
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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.7
1-2	.0	3.5	.8	.0	.0	.0	4.3
3-4	.0	1.1	3.0	.9	.0	.0	5.0
5-6	.0	.0	2.1	.9	.0	.0	3.0
7	.0	.0	.6	1.3	.2	.0	2.1
8-9	.0	.0	.5	.9	.0	.0	1.4
10-11	.0	.2	.0	.4	1.3	.0	1.9
12	.0	.0	.0	.0	.8	.0	.8
13-16	.0	.0	.0	.2	.4	.0	.7
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	5.3	7.0	4.6	2.7	.0	19.8

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.3	.0	.0	.0	.0	1.3
1-2	.1	3.0	.9	.0	.0	.0	4.0
3-4	.0	1.1	3.0	1.0	.0	.0	5.1
5-6	.0	.0	.5	1.3	1.3	.0	3.2
7	.0	.4	.5	.5	.0	.0	1.5
8-9	.0	.2	.1	.2	.4	.0	.9
10-11	.0	.0	.4	.4	.1	.0	1.0
12	.0	.0	.0	.4	.3	.0	.7
13-16	.0	.0	.0	.0	.7	.0	.7
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.2	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	6.1	5.4	4.0	3.2	.0	18.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.4	.0	.0	.0	.0	1.3
1-2	.4	1.8	.2	.0	.0	.0	2.4
3-4	.0	1.0	2.1	.2	.0	.0	3.2
5-6	.0	.2	1.1	.4	.0	.0	1.8
7	.0	.0	.0	.2	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.2	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.2	.0	.0	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	3.4	3.9	.9	.0	.0	9.4

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.5	.0	.0	.0	.0	.8	
1-2	.0	2.6	.3	.0	.0	.0	2.9	
3-4	.0	.8	1.3	.0	.0	.0	2.1	
5-6	.0	.2	1.3	.5	.0	.0	2.0	
7	.0	.2	1.0	.0	.2	.0	1.4	
8-9	.0	.0	.2	.4	.0	.0	.7	
10-11	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	4.4	4.0	1.3	.2	.0	10.2	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.2	5.0	.0	.0	.0	.0	10.2	
1-2	1.7	19.4	4.1	.0	.0	.0	25.3	
3-4	.2	9.5	15.3	2.6	.0	.0	27.6	
5-6	.0	.6	9.5	4.8	1.3	.0	16.2	
7	.0	.9	2.8	2.4	.6	.0	6.7	
8-9	.0	.4	2.2	2.2	.4	.0	5.2	
10-11	.0	.2	.9	1.5	1.9	.0	4.5	
12	.0	.0	.0	.6	1.3	.0	1.9	
13-16	.0	.0	.0	.6	1.1	.0	1.7	
17-19	.0	.0	.0	.0	.2	.0	.2	
20-22	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.2	.0	.0	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.1	36.1	35.0	14.7	7.1	.0	100.0	463

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.7	5.8	7.9	7.6	2.3	1.9	1.4	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	151	4
6-7	.0	.4	2.7	5.6	6.6	3.5	2.9	1.6	2.1	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	135	8
8-9	.0	.4	2.5	3.3	4.1	2.9	2.7	1.6	1.9	1.6	.8	.4	.0	.0	.0	.0	.0	.0	.0	114	9
10-11	.0	.6	.4	1.9	1.6	1.2	2.5	.6	.6	.2	.8	.4	.0	.0	.0	.0	.2	.0	.0	56	10
12-13	.0	.0	.6	.8	.6	.4	1.0	.2	.2	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	22	11
>13	.0	.0	.0	.4	.2	.6	.0	.0	.2	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	9	11
INDET	1.4	.2	.4	.6	1.2	.8	.8	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	29	6
TOTAL	16	38	75	104	85	58	58	20	29	13	10	5	3	1	0	0	1	0	0	516	7
PCT	3.1	7.4	14.5	20.2	16.5	11.2	11.2	3.9	5.6	2.5	1.9	1.0	.6	.2	.0	.0	.2	.0	.0	100.0	

MAY

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1868-1977

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40.3S 177.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	1.8	2.2	1.0	.0	.0	.0	.0	5.0	.7	.0	2.7	.0	.0	.0	.0	91.6
NE	8.9	.2	3.3	.0	.0	.0	.0	11.5	1.2	.0	3.8	.0	.0	.0	.9	82.6
E	11.4	6.6	7.2	.0	.0	.0	.0	25.3	6.0	.0	9.6	.0	.0	.0	.0	59.0
SE	11.1	8.4	8.4	.0	.0	.0	.0	27.9	3.6	.0	3.9	.0	.0	.0	.0	64.6
S	8.0	8.7	5.2	.0	.0	.0	.0	21.9	5.7	.0	.7	.0	.0	.0	.0	71.7
SW	6.3	7.3	3.2	.0	.0	.0	.9	17.7	6.4	1.7	1.9	.0	.5	.0	.0	72.9
W	1.9	.8	.8	.0	.0	.0	.0	3.5	1.5	3.5	.0	.0	.8	.0	.0	90.7
NW	3.3	3.1	.7	.0	.0	.0	.0	7.1	.7	.8	3.3	.0	.7	.7	.0	86.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	2.1	.0	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.0	97.9
TOT PCT	5.7	4.7	3.2	.0	.0	.0	.2	13.7	3.2	.8	2.3	.0	.3	.2	.2	79.7
TOT OBS:	1125															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.5	3.8	3.2	.0	.0	.0	.0	12.1	1.7	.3	2.9	.0	.3	.0	.0	82.7
06&09	7.2	2.5	2.5	.0	.0	.0	.0	12.2	3.9	.4	2.9	.0	.4	.7	.7	79.6
12&15	4.4	8.6	3.3	.0	.0	.0	.7	16.8	4.0	.7	2.2	.0	.4	.0	.0	76.2
18&21	5.9	4.4	3.3	.0	.0	.0	.0	13.6	2.9	1.8	1.8	.0	.0	.0	.0	80.1
TOT PCT	5.7	4.7	3.1	.0	.0	.0	.2	13.6	3.1	.8	2.5	.0	.3	.2	.2	79.8
TOT OBS:	1170															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.3	6.4	5.6	1.0	.2	.0		14.5	11.3	15.2	23.8	11.5	16.2	14.3	10.2	13.6	12.2
NE	1.1	3.8	3.8	.5	.0	.0		9.2	10.6	11.1	13.5	11.2	9.2	7.9	3.9	6.6	8.9
E	.2	2.1	1.5	.3	.0	.0		4.1	11.1	4.4	3.3	2.2	5.9	5.2	1.6	4.5	3.5
SE	.9	2.6	2.8	.9	.2	.0		7.3	13.1	7.4	6.0	7.1	7.5	6.5	9.9	5.6	10.1
S	1.1	4.3	6.6	5.0	1.1	.1		18.2	17.3	17.6	18.8	21.0	21.1	17.5	18.8	14.0	18.5
SW	.4	4.2	6.8	4.3	1.7	.4		17.8	19.2	17.2	14.0	22.5	13.5	17.0	15.1	23.3	18.2
W	.6	5.8	3.6	1.1	.2	.0		11.3	12.0	9.4	7.0	7.2	8.7	15.1	13.8	16.2	11.5
NW	.8	5.8	5.2	1.1	.3	.0		13.2	12.4	13.1	10.8	13.0	10.6	13.7	21.6	15.0	10.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.3							4.3	.0	4.7	3.0	4.1	7.3	2.8	5.2	1.1	7.3
TOT OBS	159	512	528	209	54	6	1468		13.6	319	100	169	179	284	96	178	143
TOT PCT	10.8	34.9	36.0	14.2	3.7	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.7	8.3	2.3	.3	.0		14.5	11.3	17.2	13.9	13.2	13.0
NE	2.9	4.7	1.3	.2	.0		9.2	10.6	11.6	10.2	6.9	7.6
E	1.1	2.2	.9	.0	.0		4.1	11.1	4.1	4.1	4.3	4.0
SE	1.7	3.3	2.0	.3	.1		7.3	13.1	7.0	7.3	7.4	7.6
S	2.6	6.7	9.7	3.1	.2		18.2	17.3	17.9	21.0	17.8	16.0
SW	2.2	5.2	6.9	2.4	1.1		17.8	19.2	16.4	17.9	16.5	21.0
W	3.2	5.3	2.1	.7	.0		11.3	12.0	8.8	8.0	14.7	14.1
NW	3.0	6.8	2.9	.5	.1		13.2	12.4	12.5	11.8	15.7	12.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.3						4.3	.0	4.3	5.7	3.4	3.7
TOT OBS	362	623	353	110	20	1468		13.6	419	348	380	321
TOT PCT	24.7	42.4	24.0	7.5	1.4		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.3	7.6	28.2	38.9	16.0	4.8	.2	14.4	100.0	419
06&09	5.7	6.3	35.6	31.9	15.8	3.7	.9	13.4	100.0	348
12&15	3.4	5.5	36.6	39.2	12.4	2.6	.3	13.4	100.0	380
18&21	3.7	6.5	40.8	32.7	12.5	3.4	.3	13.0	100.0	321
TOT	63	96	512	528	209	54	6	13.6		1468
PCT	4.3	6.5	34.9	36.0	14.2	3.7	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.8	1.6	3.7	2.4		4.0
NE	1.4	1.6	3.8	3.0		5.6
E	.7	.3	.5	2.1		6.0
SE	.4	.4	3.1	2.5		6.4
S	2.1	3.0	6.7	4.4		5.6
SW	5.0	4.2	10.0	3.7		4.8
W	6.4	2.4	2.0	.9		2.8
NW	6.3	1.6	3.7	1.7		3.5
VAR	.0	.0	.0	.0		.0
CALM	2.1	.7	.2	.3		2.1
TOT OBS	184	96	204	124	608	4.6
TOT PCT	30.3	15.8	33.6	20.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 2499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.1	1.2	1.2	.5	.2	.2	.0	.0	10.0	
NE	.2	.0	.0	1.9	2.0	.5	.3	.2	.0	.0	5.2	
E	.1	.0	.2	1.2	.5	.1	.0	.0	.0	.0	1.5	
SE	.2	.0	.5	2.3	1.1	.6	.3	.0	.0	.0	1.3	
S	.0	.1	.6	3.0	4.6	1.5	.0	.0	.0	.0	6.2	
SW	.3	*	.4	2.4	6.1	1.2	.8	.0	.0	.0	11.5	
W	.0	.0	.0	.3	.8	.5	.0	.2	.0	.0	9.4	
NW	.0	.0	.1	1.4	.7	.3	.5	.3	.0	.2	9.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	3.1	
TOT OBS	5	1	11	84	103	32	13	6	0	1	352	608
TOT PCT	.8	.2	1.8	13.8	16.9	5.3	2.1	1.0	.0	.2	57.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.2	.2	.2	.2	.2	.2	.2	.2
* OR >5000	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
* OR >3500	2.7	3.2	3.2	3.2	3.2	3.2	3.2	3.2
* OR >2000	7.4	8.7	8.7	8.7	8.7	8.7	8.7	8.7
* OR >1000	18.8	24.8	25.3	25.3	25.3	25.3	25.3	25.3
* OR >400	27.1	37.0	38.3	38.5	38.5	38.8	38.8	38.8
* OR >300	27.2	38.0	39.9	40.1	40.2	40.5	40.5	40.5
* OR >150	27.2	38.1	40.1	40.2	40.4	40.7	40.7	40.7
* OR > 0	27.2	38.5	40.9	41.0	41.2	41.5	41.5	41.5
TOTAL	170	240	255	256	257	259	259	259

TOTAL NUMBER OF OBS: 624 PCT FREQ NH <5/8: 58.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
19.9	15.7	10.1	7.7	8.6	6.6	7.1	12.1	16.0	.2	662

MAY

PERIOD: (PRIMARY) 1930-1977
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.3	
1/2<1	PCP	.0	*	.1	.3	.3	*	.0	.0	.0	.0	.8	
	NO PCP	.0	.0	.0	.0	*	*	.0	.1	.0	.0	.2	
	TOT %	.0	*	.1	.3	.3	.1	.0	.1	.0	.0	1.0	
1<2	PCP	.0	.0	.1	.1	.2	.2	.0	.1	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.1	.1	.3	.2	.0	.1	.0	.0	.8	
2<5	PCP	.2	*	.2	.4	.6	.5	.0	.2	.0	.0	1.9	
	NO PCP	.1	.1	.1	.0	.2	.2	.0	.3	.0	.0	1.0	
	TOT %	.3	.1	.2	.4	.8	.7	.0	.5	.0	.0	2.8	
5<10	PCP	.2	.5	.5	.8	2.0	2.0	.2	.2	.0	.0	6.4	
	NO PCP	3.3	2.7	.9	1.9	3.7	4.1	3.4	2.8	.0	.7	23.5	
	TOT %	3.6	3.1	1.3	2.7	5.8	6.1	3.6	2.9	.0	.7	29.9	
10+	PCP	.2	.5	.1	.6	1.0	.5	.1	.5	.0	.1	3.6	
	NO PCP	9.2	5.6	1.8	3.8	10.3	11.1	7.0	9.4	.0	3.4	61.6	
	TOT %	9.4	6.2	1.9	4.5	11.2	11.6	7.1	9.9	.0	3.5	65.2	
	TOT OBS												1125
	TOT PCT	13.3	9.5	3.7	8.0	18.4	18.8	10.7	13.5	.0	4.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.1	.1	.0	.0	.0		.2	
	TOT %	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.1	.2	.0	.0	.0	.1	.0		.3	
	11-21	.0	.0	.0	.1	.1	.1	.0	.0	.0		.3	
	22+	.0	.0	.0	*	.2	.0	.0	.0	.0		.3	
	TOT %	.0	*	.1	.3	.3	.1	.0	.1	.0	.0	1.0	
1<2	0-3	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.1	.1	.0	.0	.1	.1	.0		.3	
	11-21	.0	.0	.0	.0	.0	.0	.1	.1	.0		.2	
	22+	.0	.0	.0	*	.1	.2	.0	.0	.0		.3	
	TOT %	.0	.0	.1	.1	.3	.2	.2	.2	.0	.0	1.0	
2<5	0-3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.1	.1	.1	.1	.1	.1	.0	.4	.0		1.0	
	11-21	*	*	.0	.3	.4	.2	.0	.1	.0		1.0	
	22+	.0	.0	.2	.1	.1	.4	.0	.1	.0		.9	
	TOT %	.3	.1	.3	.5	.6	.7	.0	.6	.0	.0	3.1	
5<10	0-3	.3	.5	.0	.1	.3	.1	.2	.3	.0	.8	2.5	
	4-10	1.6	1.0	.5	.5	.7	1.4	2.6	1.6	.0		9.8	
	11-21	1.2	1.4	.8	1.3	1.6	1.8	.5	.4	.0		9.0	
	22+	.4	.2	.1	.8	3.2	2.7	.3	.6	.0		8.3	
	TOT %	3.5	3.1	1.3	2.6	5.7	6.1	3.6	2.9	.0	.8	29.6	
10+	0-3	.8	.6	.1	.8	.8	.4	.3	.7	.0	3.5	8.0	
	4-10	4.3	2.8	1.2	2.2	3.4	3.1	2.6	3.8	.0		23.3	
	11-21	3.7	2.3	.5	1.4	4.6	4.4	3.1	4.4	.0		24.4	
	22+	.8	.4	.1	.4	2.3	3.5	1.0	.8	.0		9.3	
	TOT %	9.5	6.1	1.9	4.7	11.1	11.5	7.0	9.7	.0	3.5	65.0	
	TOT OBS												1144
	TOT PCT	13.3	9.4	3.7	8.3	18.2	18.7	10.7	13.4	.0	4.3	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.6	1.7	12.7	18.2	5.0	2.2	1.7	.0	.0	42.0	58.0	181
06&09	1.2	.0	1.2	13.3	18.8	6.1	1.2	.0	.0	.6	42.4	57.6	165
12&15	2.2	.0	.7	17.6	12.5	6.6	.7	.7	.0	.0	41.2	58.8	136
18&21	.0	.0	3.1	9.3	14.3	3.7	3.7	1.2	.0	.0	35.4	64.6	161
TOT	5	1	11	84	104	34	13	6	0	1	259	384	643
PCT	.8	.2	1.7	13.1	16.2	5.3	2.0	.9	.0	.2	40.3	59.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.6	2.0	.3	2.3	33.6	61.3	351
06&09	.4	1.1	2.5	3.9	24.3	66.0	285
12&15	.0	.4	.7	2.9	38.1	57.9	278
18&21	.0	.0	.7	3.3	22.9	73.1	275
TOT	3	11	12	36	362	765	1189
PCT	.3	.9	1.0	3.0	30.4	64.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YDS	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	2.8	15.6	27.2	57.2	180
06&09	1.3	3.1	17.5	26.3	56.3	160
12&15	2.3	3.1	22.5	20.9	56.6	129
18&21	.0	3.2	12.9	23.9	63.2	155
TOT	5	19	105	155	364	624
PCT	.8	3.0	16.8	24.8	58.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.1	.2	.1	.0	.0	.0	4	.3
65/69	.0	.0	.0	.4	.5	1.2	.2	.3	35	2.9
60/64	.0	.1	.1	1.1	4.0	7.5	6.1	3.9	271	22.8
55/59	.0	.2	.3	1.0	7.6	11.8	12.3	7.7	486	40.8
50/54	.0	.0	.4	.7	5.3	6.3	9.3	5.5	327	27.5
45/49	.0	.0	.0	.1	.3	1.6	2.3	1.3	66	5.5
40/44	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
TOTAL	0	3	10	46	213	337	358	223	1190	100.0
PCT	.0	.3	.8	3.9	17.9	28.3	30.1	18.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.1	.0	.0	.0	.0	.0	.1	.0	.1
.8	.7	.0	.0	.0	.0	.4	.5	.0	.5
6.2	4.0	.9	.9	.8	1.6	2.6	4.5	.0	1.3
5.7	4.5	1.7	2.9	7.1	6.7	5.2	6.2	.0	.9
1.6	.8	.4	2.7	9.1	7.7	2.8	1.2	.0	1.3
.1	.1	.0	.4	2.1	1.4	.9	.3	.0	.3
.0	.0	.0	.0	.1	*	.0	.0	.0	.0
14.5	10.1	3.0	6.8	19.1	17.4	11.9	12.8	.0	4.3

TABLE 15

MEANS,EXTREMES AND PRACENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	72	69	66	58	50	47	43	58.1	435
06&09	72	66	64	57	50	47	46	56.7	383
12&15	67	64	63	55	49	45	41	55.5	390
18&21	66	64	63	55	49	46	41	55.7	327
TOT	72	67	64	57	49	47	41	56.6	1505

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	9.5	26.3	28.2	21.5	14.5	75	358
06&09	.0	4.5	15.3	29.3	27.5	23.3	80	287
12&15	.0	1.6	14.1	23.7	40.1	20.4	81	304
18&21	.0	3.9	14.0	31.9	32.3	17.9	80	285
TOT	0	63	221	348	370	232	79	1234

MAY

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1868-1977

AREA 0029 HAWKE BAY
40.3S 177.0E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
11/13	.0	.0	.0	.0	.1	.0	.0	.1	2	.0	.2
9/10	.0	.0	.0	.0	.2	.2	.5	.0	8	.0	.9
7/8	.0	.0	.0	.0	.2	.6	.5	.1	12	.0	1.4
6	.0	.0	.0	.0	.1	.9	.0	.0	9	.0	1.1
5	.0	.0	.0	.0	.4	1.3	.2	.0	16	.0	1.9
4	.0	.0	.0	.4	1.4	2.0	.0	.0	32	.1	3.7
3	.0	.0	.0	.2	1.7	1.3	.0	.0	27	.0	3.2
2	.0	.0	.1	.8	2.5	1.5	.2	.0	44	.2	5.0
1	.0	.0	.0	.2	2.8	2.8	.1	.0	51	.2	5.8
0	.0	.0	.1	2.3	4.9	3.4	.1	.1	92	.7	10.2
-1	.0	.0	.8	3.4	4.7	2.0	.0	.0	93	.5	10.6
-2	.0	.2	.7	3.4	3.4	1.2	.0	.0	76	.6	8.4
-3	.0	.0	1.5	3.9	3.6	.6	.0	.0	81	.5	9.1
-4	.0	.2	.9	4.0	2.4	.4	.0	.0	67	.6	7.4
-5	.0	.0	2.5	3.1	2.4	.1	.0	.0	68	.0	8.1
-6	.0	.2	1.7	2.4	.4	.1	.1	.0	41	.0	4.9
-7/-8	.0	.7	2.5	2.4	1.9	.4	.0	.0	66	.0	7.8
-9/-10	.1	.7	1.8	.9	.5	.1	.0	.0	35	.0	4.2
-11/-13	.4	.0	1.1	.5	.0	.0	.0	.0	16	.0	1.9
-14/-16	.0	.5	.0	.1	.0	.0	.0	.0	5	.0	.6
-17/-19	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	4	23	116	237	283	162	19	3	843	29	814
PCT	.5	2.7	13.8	28.1	33.6	19.2	1.9	.4	100.0	3.4	96.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.5	.0	.0	.0	.0	.6
1-2	.1	3.4	1.5	.0	.0	.0	5.0
3-4	.3	1.5	3.1	.3	.0	.0	5.2
5-6	.0	.3	1.5	.5	.0	.0	2.3
7	.0	.0	.1	.4	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.7	6.2	1.2	.0	.0	13.7

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	*	1.3	.0	.0	.0	.0	1.3
1-2	.0	1.8	.6	.0	.0	.0	2.4
3-4	.0	.4	1.9	.4	.0	.0	2.7
5-6	.0	.2	1.6	*	.0	.0	1.8
7	.0	.0	.4	.2	.0	.0	.6
8-9	.0	.0	.2	.2	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	*	3.7	4.7	1.0	.0	.0	9.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	.9	.1	.0	.0	.0	1.1
3-4	.0	.4	.7	.0	.0	.0	1.0
5-6	.0	.2	.1	.2	.0	.0	.5
7	.0	.0	.2	.1	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.9	1.1	.3	.0	.0	3.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.4	.0	.0	.0	.0	.8
1-2	.0	.2	.5	.0	.0	.0	.7
3-4	.0	.8	.3	.2	.0	.0	1.3
5-6	.0	.0	.9	.4	.0	.0	1.4
7	.0	.0	.8	.7	.0	.0	1.4
8-9	.0	.0	.0	.0	.2	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.2	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	1.4	2.5	1.3	.4	.0	5.9

PERIOD: (OVER-ALL) 1963-1977 AREA 0029 HAWKE BAY 40.3S 177.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.0	1.4	1.4	.0	.0	.0	2.8
3-4	.0	1.0	2.3	.3	.0	.0	3.7
5-6	.0	.1	2.3	.5	.0	.0	2.9
7	.0	.0	1.5	2.0	.0	.0	3.5
8-9	.0	.0	.0	.3	.1	.0	.4
10-11	.0	.0	.0	.8	.6	.0	1.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.5	.6	.1	1.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.3	7.4	4.3	1.3	.1	16.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	*	.0	.0	.0	.0	*
1-2	.6	2.3	.9	.0	.0	.0	3.9
3-4	.0	2.1	2.4	.2	.0	.0	4.7
5-6	.0	*	2.4	1.0	.6	.0	4.0
7	.0	.0	2.5	1.2	.8	.4	4.8
8-9	.0	.2	.4	1.6	.8	.2	3.2
10-11	.0	.0	.2	.2	.6	.0	.9
12	.0	.0	.0	.6	.0	.0	.6
13-16	.0	.0	.0	.4	.0	*	.5
17-19	.0	.0	.0	.0	.6	.0	.6
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.2	.0	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.7	8.7	5.5	3.2	.6	23.4

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.1	2.0	.5	.0	.0	.0	2.7
3-4	.2	.7	1.9	.4	.0	.0	3.1
5-6	.0	.2	2.0	.3	.0	.0	2.5
7	.0	.0	.1	.4	.1	.0	.7
8-9	.0	.0	.4	.0	.2	.0	.6
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.4	4.9	1.5	.3	.0	10.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.9	.0	.0	.0	.0	1.1	
1-2	.2	2.2	2.5	.0	.0	.0	4.9	
3-4	.4	1.2	2.0	.0	.0	.0	3.6	
5-6	.0	.4	1.3	.8	.0	.0	2.5	
7	.0	.2	.0	.5	*	.0	.7	
8-9	.0	.0	.0	.0	.2	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.2	.0	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.8	5.1	5.8	1.3	.2	.0	13.3	96.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.0	4.8	.0	.0	.0	.0	9.9	
1-2	1.5	14.3	8.0	.0	.0	.0	23.8	
3-4	.9	8.0	14.3	1.9	.0	.0	25.1	
5-6	.0	1.5	11.9	3.7	.6	.0	17.7	
7	.0	.2	5.6	5.4	.9	.4	12.5	
8-9	.0	.2	.9	2.0	1.5	.2	4.8	
10-11	.0	.0	.2	1.1	1.1	.0	2.4	
12	.0	.2	.0	.7	.2	.0	1.1	
13-16	.0	.0	.0	1.1	.6	.2	1.9	
17-19	.0	.0	.0	.0	.6	.0	.6	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.2	.0	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								537
TOT PCT	7.4	29.2	41.0	16.2	5.4	.7	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	4.6	8.3	5.4	3.0	1.4	1.2	.8	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	153	5
6-7	.0	1.0	2.2	7.3	6.1	3.7	2.5	.3	4.1	.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	164	8
8-9	.0	.3	1.9	4.4	3.6	3.7	4.6	.5	1.2	.7	.5	.3	.8	.0	.0	.0	.0	.0	.0	133	9
10-11	.0	.2	.3	.8	2.0	.8	.5	.7	1.9	.5	.7	.3	.0	.2	.2	.2	.0	.0	.0	55	12
12-13	.0	.0	1.0	.3	1.0	.5	.5	.5	1.4	.0	.2	.0	.0	.0	.0	.0	.2	.0	.0	33	11
>13	.0	.0	.0	.3	.2	.5	.2	.2	.3	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	12	11
INDET	1.5	.2	1.9	1.2	.8	.7	.3	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	41	5
TOTAL	11	37	92	117	99	67	58	18	37	10	10	6	5	1	1	1	1	0	0	591	8
PCT	1.9	6.3	15.6	19.8	16.8	11.3	9.8	3.0	9.6	1.7	1.7	1.0	.8	.2	.2	.2	.2	.0	.0	100.0	

JUNE

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1887-1977

AREA 0029 HAWKE BAY
40.4S 177.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	4.7	2.1	1.6	.0	.0	.0	.0	8.4	.8	.0	1.2	.0	.6		.0	88.9
NE	7.2	5.3	6.7	.0	.0	.0	.0	19.3	.9	.0	5.1	.0	.2		.0	74.5
E	13.5	9.8	2.3	.0	.0	.0	.0	25.6	.0	2.3	4.5	.0	.0		.0	67.7
SE	9.5	1.0	3.6	.0	.0	.0	.0	14.7	6.3	.4	1.6	.0	.0		.0	77.0
S	5.9	10.3	1.7	.0	.0	.0	.0	17.8	6.4	.7	4.0	.0	.0		.0	71.7
SW	8.5	8.2	2.8	.0	.0	.0	.0	19.5	4.5	.0	7.4	.0	.0		.0	68.5
W	1.3	1.3	.0	.0	.0	.0	.0	2.7	1.1	.0	4.8	.0	.8		.0	90.7
NW	4.3	3.6	2.1	.0	.0	.0	.0	10.0	.0	.0	3.2	.0	.9		.0	85.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	4.5	.0	.0	.0	.0	.0	.0	4.5	4.5	.0	9.1	.0	.0		.0	81.8
TOT PCT	6.1	5.2	2.5	.0	.0	.0	.0	13.9	2.7	.2	4.3	.0	.3		.0	78.6
TOT OBS:	879															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.9	6.6	1.5	.0	.0	.0	.0	13.9	1.1	.0	5.5	.0	.7		.0	78.8
06&09	6.8	4.1	1.8	.0	.0	.0	.0	12.7	4.5	.0	4.1	.0	.0		.0	78.7
12&15	5.5	8.2	2.7	.0	.0	.0	.0	16.4	3.3	.5	6.0	.0	.5		.0	73.8
18&21	6.2	2.2	4.0	.0	.0	.0	.0	12.4	2.2	.4	3.6	.0	.0		.0	81.3
TOT PCT	6.1	5.2	2.4	.0	.0	.0	.0	13.7	2.7	.2	4.8	.0	.3		.0	78.4
TOT OBS:	902															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)						
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	2.4	5.2	4.5	1.1	.5	.0		13.5	11.6	13.8	11.5	13.5	15.2	12.0	9.6	11.9	18.3
NE	1.5	4.0	4.8	1.1	.1	.0		11.5	11.9	12.6	13.1	9.0	11.5	10.9	9.6	12.5	12.1
E	.7	1.5	1.6	.3	.1	.0		4.1	11.1	5.5	9.2	2.8	3.9	5.1	.7	2.6	3.1
SE	1.6	2.6	1.4	.9	.2	.0		7.3	11.2	7.2	9.2	6.6	12.8	4.7	7.7	3.9	8.3
S	1.1	4.1	4.9	4.7	1.1	.2		16.1	18.0	15.9	8.5	22.7	15.8	16.2	20.2	14.2	13.5
SW	.4	4.9	5.7	5.2	2.3	.2		18.6	19.5	17.3	21.5	22.4	12.0	20.5	19.9	21.0	17.1
W	.4	5.1	3.6	2.2	.3	.0		11.5	14.1	8.7	10.4	10.5	7.9	16.8	16.9	17.3	5.8
NW	1.3	6.1	5.7	1.7	.1	.0		14.9	12.2	16.7	15.0	9.4	17.1	12.7	11.0	16.5	18.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.4							2.4	.0	2.4	1.5	3.0	3.8	1.1	4.4	.7	3.3
TOT OBS	127	303	353	184	50	4	1081		14.2	249	65	133	133	177	68	136	120
TOT PCT	11.7	33.6	32.7	17.0	4.6	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.2	5.8	2.8	.7	.0		13.5	11.6	13.3	14.4	11.3	14.9
NE	3.2	4.9	3.1	.3	.0		11.5	11.9	12.7	10.2	10.5	12.3
E	1.6	1.5	.9	.1	.0		4.1	11.1	6.3	3.4	3.9	2.5
SE	3.0	2.7	1.2	.4	*		7.3	11.2	7.6	9.7	5.5	6.0
S	2.2	6.2	4.2	2.7	.8		16.1	18.0	14.3	19.3	17.3	13.9
SW	2.4	5.3	6.4	3.6	.9		18.6	19.5	18.2	17.2	20.3	19.1
W	3.1	3.9	3.4	.9	.1		11.5	14.1	9.1	9.2	16.8	11.9
NW	3.7	7.4	2.9	.8	.1		14.9	12.2	16.3	13.3	12.2	17.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.4						2.4	.0	2.2	3.4	2.0	2.0
TOT OBS	279	406	271	104	21	1081		14.2	314	266	245	256
TOT PCT	25.8	37.6	25.1	9.6	1.9		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.2	8.9	32.2	32.8	19.1	4.1	.6	14.5	100.0	314
06&09	3.4	12.4	34.2	28.6	15.8	5.6	.0	13.6	100.0	266
12&15	2.0	4.5	32.7	38.0	18.4	4.5	.0	15.0	100.0	245
18&21	2.0	11.3	35.5	31.6	14.5	4.3	.8	13.7	100.0	256
TOT	76	101	363	353	184	50	4	14.2		1081
PCT	2.4	9.3	33.6	32.7	17.0	4.6	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.8	2.2	4.3	2.8		4.6
NE	2.3	1.0	2.1	4.8		5.5
E	.2	.4	.8	1.8		6.6
SE	.3	1.1	1.3	3.8		6.4
S	2.2	3.0	7.5	5.8		5.7
SW	3.4	3.0	10.2	4.8		5.4
W	6.2	2.6	2.2	1.8		3.4
NW	7.7	2.0	2.0	2.1		2.9
VAR	.0	.0	.0	.0		.0
CALM	.9	.2	.4	.4		3.7
TOT OBS	123	71	141	122	457	4.8
TOT PCT	26.9	15.5	30.9	26.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.2	.9	2.4	.8	.3	.0	.2	.4	8.0	
NE	.2	.0	.7	1.9	1.6	.5	.4	.0	.0	.2	4.7	
E	.0	.0	.0	1.0	.8	.4	.2	.2	.0	.0	.6	
SE	.0	.0	.0	1.4	.9	.4	.1	.3	.0	.0	2.5	
S	.0	.0	.6	2.7	4.9	1.5	.7	.7	.0	.0	6.6	
SW	.0	.0	.3	3.2	4.8	3.2	1.3	.1	.0	.0	8.6	
W	.2	.0	.2	.2	1.6	.2	.3	.2	.0	.0	10.2	
NW	.1	.0	.3	.4	1.4	.2	.4	.0	.0	.1	10.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.2	.7	.0	.0	.0	.0	.0	1.1	
TOT OBS	2	0	10	55	87	33	17	6	1	3	243	457
TOT PCT	.4	.0	2.2	12.0	19.0	7.2	3.7	1.3	.2	.7	53.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >5000	1.7	1.9	2.1	2.1	2.1	2.1	2.1	2.1
= OR >3500	4.5	5.6	5.8	5.8	5.8	5.8	5.8	5.8
= OR >2000	10.3	12.4	12.9	12.9	12.9	12.9	12.9	12.9
= OR >1000	23.6	29.8	31.1	31.1	31.5	31.5	31.5	31.5
= OR >600	29.2	40.6	42.9	43.1	43.6	43.6	43.6	43.6
= OR >300	29.8	42.3	44.8	45.3	45.7	45.7	45.7	45.7
= OR >150	29.8	42.3	44.8	45.3	45.7	45.7	45.7	45.7
= OR > 0	29.8	42.7	45.3	45.7	46.1	46.1	46.1	46.1
TOTAL	139	199	211	213	215	215	215	215

TOTAL NUMBER OF OBS: 466 PCT FREQ NH <5/8: 53.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
14.0	11.2	12.2	10.2	6.2	5.0	9.6	9.6	21.6	.4	500

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.1	.1	.2	.3	.0	.1	.0	.1	.9	
	NO PCP	.2	.3	.0	.0	.1	.3	.0	.3	.0	.0	1.1	
	TOT %	.2	.3	.1	.1	.2	.6	.0	.4	.0	.1	2.1	
1<2	PCP	.1	.1	.0	.1	.0	.0	.0	*	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.1	.0	.1	.1	.0	.0	*	.0	.0	.5	
2<5	PCP	.0	.1	.0	.1	.3	.5	.0	.0	.0	.0	1.0	
	NO PCP	.1	.3	.0	.2	.2	.3	.1	.0	.0	.0	1.3	
	TOT %	.1	.5	.0	.3	.6	.7	.1	.0	.0	.0	2.3	
5<10	PCP	.7	1.7	.8	.4	1.3	1.8	.2	.9	.0	.0	7.7	
	NO PCP	2.6	3.1	1.2	2.1	3.2	4.2	1.9	2.6	.0	.3	21.3	
	TOT %	3.3	4.8	2.0	2.4	4.6	6.0	2.1	3.5	.0	.3	29.0	
10+	PCP	.4	.4	.1	.4	.9	1.0	.1	.6	.0	.0	3.9	
	NO PCP	9.8	6.2	1.6	3.8	9.1	10.0	8.5	11.4	.0	1.9	62.3	
	TOT %	10.2	6.6	1.7	4.2	10.0	11.0	8.5	12.0	.0	1.9	66.2	
	TOT OBS												878
	TOT PCT	13.8	12.3	3.8	7.2	15.5	18.4	10.7	15.9	.0	2.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.2	.1	.0	.0	.0	.0	.1	.3	
	4-10	.1	.0	.0	.0	.1	.1	.0	.3	.0		.6	
	11-21	.1	.3	.1	.0	.1	.6	.0	.0	.0		1.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	TOT %	.2	.3	.1	.2	.2	.6	.0	.4	.0	.1	2.1	
1<2	0-3	.0	.2	.1	.0	.1	.0	.0	.0	.0	.0	.4	
	4-10	.1	.1	.0	.1	.0	.0	.1	.0	.0		.4	
	11-21	.1	.0	.0	.0	.1	.0	.0	*	.0		.2	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0		.1	
	TOT %	.2	.3	.1	.2	.2	.0	.1	*	.0	.0	1.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.1	.0	.0	.0		.1	
	11-21	.1	.1	.0	.1	.1	.1	.1	.0	.0		.7	
	22+	.0	.3	.0	.2	.4	.6	.1	.0	.0		1.7	
	TOT %	.1	.4	.0	.3	.6	.8	.2	.0	.0	.0	2.4	
5<10	0-3	.1	.1	.2	.4	.0	.0	.0	.2	.0	.3	1.3	
	4-10	1.0	1.4	.6	.8	1.2	1.3	.9	1.4	.0		8.4	
	11-21	.9	2.5	1.0	.9	1.4	1.2	.4	1.5	.0		9.7	
	22+	1.2	.7	.2	.5	2.0	3.4	.9	.3	.0		9.2	
	TOT %	3.2	4.7	1.9	2.6	4.6	5.9	2.1	3.4	.0	.3	28.7	
10+	0-3	2.6	1.6	.5	1.3	1.2	.4	.2	1.3	.0	2.0	11.1	
	4-10	4.1	2.3	.6	1.7	2.4	3.6	4.0	4.9	.0		23.6	
	11-21	2.8	2.4	.5	1.1	3.3	3.5	3.0	4.5	.0		21.1	
	22+	.4	.2	.1	.2	3.3	3.5	1.1	.9	.0		9.8	
	TOT %	9.9	6.4	1.6	4.4	10.2	10.9	8.3	11.7	.0	2.0	65.6	
	TOT OBS												900
	TOT PCT	13.6	12.2	3.8	7.7	15.8	18.3	10.7	15.6	.0	2.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	4.3	12.3	20.3	8.0	4.3	2.9	.7	.0	52.9	47.1	138
06&09	.8	.0	2.5	18.0	16.4	8.2	4.1	.8	.0	.0	50.8	49.2	122
12&15	1.0	.0	1.0	5.1	18.4	6.1	5.1	.0	.0	2.0	38.8	61.2	98
18&21	.0	.0	.0	9.4	17.3	4.7	.8	.8	.0	.8	33.9	66.1	127
TOT	2	0	10	56	88	33	17	6	1	3	216	269	485
PCT	.4	.0	2.1	11.5	18.1	6.8	3.5	1.2	.2	.6	44.5	55.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	3.3	.7	1.8	33.3	60.9	276
06&09	.0	.4	2.2	2.6	33.2	61.6	229
12&15	.0	2.1	1.1	2.1	31.6	63.2	190
18&21	.0	2.2	.9	3.5	18.4	75.0	228
TOT	0	19	11	23	270	600	923
PCT	.0	2.1	1.2	2.5	29.3	65.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	5.2	19.3	34.8	45.9	135
06&09	.8	3.4	22.9	29.7	47.5	118
12&15	1.1	2.2	8.7	32.6	58.7	92
18&21	.0	.8	13.2	22.3	64.5	121
TOT	2	14	77	139	250	466
PCT	.4	3.0	16.5	29.8	53.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
65/69	.0	.0	.0	.0	.3	.0	.0	.1	4	.5
60/64	.0	.0	.1	.4	1.3	2.6	2.6	1.3	74	8.4
55/59	.0	.0	.3	.9	6.0	12.9	10.3	5.8	313	35.6
50/54	.0	.0	.3	1.1	8.3	10.3	13.4	7.1	356	40.5
45/49	.0	.0	.0	.5	2.3	4.8	3.2	3.2	122	13.9
40/44	.0	.0	.0	.0	.0	.2	.5	.2	8	.9
TOTAL	0	0	8	22	160	270	283	155	878	100.0
PCT	.0	.0	.9	2.5	18.2	30.8	30.0	17.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	*	.1	.0	.0	.0	.0	.0	.0	.0
.1	.1	.0	.1	.0	.0	.0	*	.0	.1
3.0	1.5	.2	.2	.4	.3	.8	1.7	.0	.3
6.9	5.1	1.3	2.2	2.4	3.0	6.1	7.9	.0	.7
2.8	3.2	2.6	4.2	8.8	9.1	4.0	4.4	.0	1.4
.9	1.1	.3	.9	4.3	4.2	.9	.9	.0	.3
.0	.2	.0	.0	.2	.2	.0	.2	.0	.0
13.8	11.2	4.5	7.7	16.2	16.9	11.8	15.1	.0	2.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	70	66	62	55	48	46	45	55.1	322
06&09	64	63	60	54	48	45	42	53.9	265
12&15	61	60	59	53	47	45	44	53.0	253
18&21	63	61	60	54	47	44	42	53.0	256
TOT	70	63	60	54	47	45	42	53.9	1096

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	4.6	19.8	34.7	26.7	14.1	78	262
06&09	.0	3.1	15.0	28.3	36.3	17.3	80	226
12&15	.0	4.1	20.7	28.0	25.4	21.8	79	193
18&21	.0	1.8	17.9	29.8	31.2	19.3	80	218
TOT	0	31	165	274	269	160	79	999

JUNE

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1887-1977

AREA 0029 HAWKE BAY
40.4S 177.3E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 69	69 72	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
11/13	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
9/10	.0	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
6	.0	.0	.0	.0	.2	.0	.0	.0	1	.0	.2
5	.0	.0	.0	.0	.8	.5	.0	.0	8	.2	1.2
4	.0	.0	.3	.2	1.8	.8	.0	.0	19	.2	3.0
3	.0	.0	.2	.5	1.8	.7	.0	.0	19	.2	3.0
2	.0	.0	.5	1.3	1.5	.8	.2	.0	26	.2	4.1
1	.0	.0	.0	2.1	3.6	1.2	.0	.0	42	.2	6.8
0	.0	.2	1.5	3.1	3.6	.3	.2	.0	54	.3	8.4
-1	.0	.0	2.1	2.8	4.6	.7	.0	.0	62	.5	9.7
-2	.0	.5	2.1	4.3	2.5	.5	.0	.0	60	.7	9.2
-3	.0	.0	3.5	4.6	1.6	.0	.0	.0	59	1.3	8.4
-4	.0	.0	3.3	4.3	2.3	.2	.0	.0	61	.3	9.7
-5	.0	1.2	2.8	3.3	1.3	.0	.0	.0	52	1.0	7.6
-6	.0	1.6	2.5	2.0	.2	.0	.0	.0	38	.3	5.9
-7/-8	.0	2.0	4.4	1.8	.3	.0	.0	.0	52	.5	8.1
-9/-10	.2	1.2	2.8	.8	.0	.0	.0	.0	30	.0	4.9
-11/-13	.2	1.2	1.2	.2	.0	.0	.0	.0	16	.0	2.6
-14/-16	.0	.0	.5	.0	.0	.0	.0	.0	3	.0	.5
-17/-19	.0	.2	.2	.0	.0	.0	.0	.0	2	.0	.3
TOTAL	2		169		159		2			36	571
		48		190		36		1	607		
PCT	.3	7.9	27.8	31.3	26.2	5.9	.3	.2	100.0	5.9	94.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.5	.0	.0	.0	.0	1.3
1-2	.3	4.5	.2	.0	.0	.0	4.9
3-4	.0	.5	3.0	.0	.0	.0	3.5
5-6	.0	.5	1.4	.3	.0	.0	2.3
7	.0	.0	.7	.5	.3	.0	1.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	5.9	5.5	1.2	.3	.0	14.0

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.3	1.7	.3	.0	.0	.0	2.3
3-4	.0	.5	2.3	.5	.0	.0	3.3
5-6	.0	.0	1.5	.3	.0	.0	1.8
7	.0	.0	1.1	.3	.3	.0	1.6
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.2	5.5	1.1	.3	.0	9.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.0	.0	.0	.0	.0	.5
1-2	.0	.8	.4	.0	.0	.0	1.2
3-4	.0	.0	.7	.0	.0	.0	.7
5-6	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.5	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	.8	2.3	.0	.2	.0	3.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.5	1.3	.4	.0	.0	.0	2.4
3-4	.0	.5	.9	.0	.0	.0	1.4
5-6	.0	.0	.8	.0	.0	.0	.8
7	.0	.0	.3	.3	.0	.0	.5
8-9	.0	.0	.1	.3	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.5	.0	.0	.0	.0	.5
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	1.8	2.6	.5	.1	.0	6.1

PERIOD: (OVER-ALL) 1963-1977 JUNE AREA 0029 HAWKE BAY 40.4S 177.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.3	.0	.0	.0	.0	.8
1-2	.5	1.0	.8	.0	.0	.0	2.3
3-4	.0	.4	2.7	.2	.0	.0	3.3
5-6	.0	.7	2.1	1.7	.0	.0	4.5
7	.0	.0	.5	1.7	.3	.0	2.4
8-9	.0	.0	.5	.8	.0	.0	1.2
10-11	.0	.0	.3	1.2	.3	.0	1.7
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.5	.0	.0	.5
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	2.3	6.8	6.3	.5	.0	17.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.3	3.8	.8	.0	.0	.0	4.9
3-4	.0	1.6	1.6	.6	.0	.0	3.8
5-6	.0	.1	2.4	.9	.0	.0	3.5
7	.0	.0	1.4	.7	.3	.0	2.4
8-9	.0	.0	.3	.5	.3	.0	1.0
10-11	.0	.0	.0	.7	.3	.3	1.2
12	.0	.0	.3	.6	.5	.0	1.4
13-16	.0	.0	.0	.3	2.1	.0	2.3
17-19	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.3	.1	.0	.3
23-25	.0	.0	.0	.0	.8	.0	.8
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.3	.3
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.9	6.7	4.6	4.6	.5	22.5

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.5	.0	.0	.0	1.0
1-2	.0	3.3	.9	.0	.0	.0	4.2
3-4	.0	2.1	1.2	.3	.0	.0	3.6
5-6	.0	.0	1.4	.3	.0	.0	1.6
7	.0	.0	.5	.2	.2	.0	.9
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.3	.0	.0	.0	.3
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.0	4.8	1.4	.4	.0	12.6

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.8	.0	.0	.0	.0	.8	
1-2	.0	2.5	1.8	.0	.0	.0	4.3	
3-4	.0	1.4	3.5	.0	.0	.0	4.8	
5-6	.0	.6	1.7	.3	.3	.0	2.8	
7	.0	.0	.1	.3	.0	.0	.3	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.3	.0	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	5.3	7.0	.8	.3	.0	13.3	98.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.4	2.6	.5	.0	.0	.0	6.4	
1-2	2.6	18.8	5.7	.0	.0	.0	27.1	
3-4	.0	7.0	15.7	1.5	.0	.0	24.2	
5-6	.0	1.8	12.1	3.6	.3	.0	17.8	
7	.0	.0	4.9	3.9	1.3	.0	10.1	
8-9	.0	.0	1.0	1.8	.3	.0	3.1	
10-11	.0	.0	.3	2.3	.5	.3	3.4	
12	.0	.5	.5	.8	.5	.0	2.3	
13-16	.0	.0	.0	.8	2.3	.0	3.1	
17-19	.0	.0	.0	.8	.3	.0	1.0	
20-22	.0	.0	.0	.3	.3	.0	.5	
23-25	.0	.0	.0	.0	.8	.0	.8	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.3	.3	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.9	30.7	40.7	15.7	6.4	.5	100.0	388

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.4	2.4	6.6	4.3	5.2	1.2	.5	1.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	97	5
6-7	.0	.2	2.4	6.6	7.8	4.7	4.3	.2	1.7	.7	.5	.2	.2	.0	.0	.0	.0	.0	.0	125	8
8-9	.0	.5	1.2	3.8	3.3	2.4	4.5	1.4	1.4	.5	.2	.2	.2	.0	.0	.0	.0	.0	.0	83	9
10-11	.0	.2	1.4	1.9	1.7	1.4	2.4	1.7	2.1	.2	.5	.0	.2	.2	.0	.0	.0	.0	.0	59	10
12-13	.0	.0	.2	.7	.2	.5	.2	.0	.5	.7	.2	.0	.2	.0	.0	.0	.0	.0	.0	15	12
>13	.0	.0	.0	.5	1.2	.2	.9	.2	.0	.0	1.9	.5	.0	.2	.0	.0	.0	.0	.0	24	14
INDET	.7	.2	.9	1.7	.2	.2	.5	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	9
TOTAL	9	15	54	82	83	45	56	20	24	11	14	4	4	2	0	0	0	0	0	423	8
PCT	2.1	3.5	12.8	19.4	19.6	10.6	13.2	4.7	5.7	2.6	3.3	.9	.9	.5	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1868-1977

AREA 0029 HAWKE BAY
40.4S 177.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	5.4	.0	1.6	.0	.0	.0	.0	7.0	1.4	.8	1.2	.0	.8		.0	88.7
NE	10.4	7.7	8.8	.0	.0	.0	.0	25.8	2.5	1.1	2.7	.0	1.1		1.1	65.8
E	7.1	9.5	2.4	.0	.0	.0	.0	19.0	2.4	.0	1.2	.0	.0		.0	77.4
SE	10.3	15.7	9.2	.0	.0	.0	.0	35.2	1.9	.0	5.4	.0	.0		.0	57.9
S	12.9	12.7	2.0	.0	.0	.0	1.4	29.0	5.1	.0	4.5	.0	.6		.4	60.5
SW	12.1	12.8	2.8	.0	.0	.0	1.2	27.9	5.9	.0	1.9	.0	.0		.1	64.2
W	4.7	.5	1.7	.0	.0	.0	.0	6.8	1.7	2.6	.0	.0	.0		.0	88.9
NW	6.6	.0	.8	.0	.0	.0	.0	7.4	.0	.2	.8	.0	.0		.8	90.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
TOT PCT	9.2	7.5	3.1	.0	.0	.0	.5	20.0	3.1	.5	2.2	.0	.3		.3	73.5
TOT OBS:	944															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	8.7	7.4	4.5	.0	.0	.0	.0	19.6	3.2	.0	2.2	.0	.6		.6	73.7
06&09	10.3	7.9	2.3	.0	.0	.0	.4	21.1	2.9	.4	2.1	.0	.4		.0	73.1
12&15	7.0	7.5	2.8	.0	.0	.0	.9	18.3	2.8	.9	4.7	.0	.0		.0	73.2
18&21	10.5	6.8	1.8	.0	.0	.0	.9	20.1	3.2	.9	.9	.0	.0		.5	74.4
TOT PCT	9.1	7.4	3.0	.0	.0	.0	.5	19.8	3.0	.5	2.4	.0	.3		.3	73.6
TOT OBS:	986															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)						
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.2	5.9	4.0	1.1	.5	.0		12.7	11.9	12.1	7.2	14.1	14.7	12.4	7.1	15.7	13.8
NE	1.3	9.4	3.3	1.1	.1	.0		9.3	12.2	10.1	8.9	8.2	9.7	12.1	2.6	11.1	9.1
E	.6	1.7	1.4	1.1	.2	.0		5.0	14.2	5.3	4.8	7.8	4.0	5.7	.7	4.9	.9
SE	.6	3.9	2.1	.8	.2	.0		7.6	12.0	6.9	7.2	6.9	9.9	6.6	15.7	2.0	10.9
S	1.0	5.3	7.1	4.7	1.9	.1		20.1	17.8	20.3	29.8	18.5	22.5	16.4	14.9	18.2	23.7
SW	.3	4.6	9.3	9.0	1.9	.5		21.6	19.5	20.4	26.4	17.8	17.1	23.1	33.6	23.9	20.1
W	.3	4.1	4.1	.8	.6	.2		10.2	15.8	10.2	6.2	11.6	5.9	13.5	9.7	12.6	8.7
NW	1.1	5.3	5.2	.9	.2	*		12.8	12.1	13.4	8.2	14.5	14.2	9.3	15.7	11.5	15.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.7							.7	.0	1.3	1.4	.7	.0	1.0	.0	.0	.9
TOT OBS	87	412	439	185	69	10	1202		15.2	307	73	138	162	206	67	137	112
TOT PCT	7.2	34.3	36.5	15.4	5.7	.8		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.8	6.3	1.7	.8	.1		12.7	11.9	11.1	14.4	11.1	14.9
NE	2.0	5.2	1.6	.5	*		9.3	12.2	9.9	9.0	9.8	8.4
E	1.4	1.6	1.4	.6	.0		5.0	14.2	5.2	6.8	4.5	3.1
SE	1.6	4.3	1.1	.5	.0		7.6	12.0	7.0	8.5	8.8	6.0
S	3.6	6.3	6.3	3.1	.8		20.1	17.8	22.1	20.7	16.0	20.7
SW	2.2	6.5	8.4	3.0	1.4		21.6	19.5	21.6	17.4	25.6	22.2
W	1.4	5.0	2.5	.9	.5		10.2	15.8	9.4	8.5	12.5	10.8
NW	3.2	6.1	3.1	.2	.1		12.8	12.1	12.4	14.3	10.9	13.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	.7						.7	.0	1.3	.3	.7	.4
TOT OBS	259	496	315	117	35	1202		15.2	380	300	273	249
TOT PCT	19.9	41.3	26.2	9.7	2.9		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.3	8.7	30.5	38.4	15.0	5.8	.3	15.1	100.0	380
06&09	.3	6.0	38.7	33.7	13.0	6.7	1.7	15.1	100.0	300
12&15	.7	2.9	34.8	37.4	17.6	5.5	1.1	15.9	100.0	273
18&21	.4	7.6	34.1	36.1	16.5	4.8	.4	14.9	100.0	249
TOT	9	78	412	439	185	69	10	15.2		1202
PCT	.7	6.5	34.3	36.5	15.4	5.7	.8		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.4	2.0	4.2	1.5		3.5
NE	2.3	.9	3.0	4.1		5.4
E	1.1	.5	1.5	2.4		5.6
SE	.0	.8	1.6	.8		6.2
S	2.5	2.4	7.9	4.5		5.5
SW	4.7	4.0	9.4	4.9		5.0
W	7.4	1.5	2.1	2.1		3.2
NW	5.5	2.7	3.5	2.0		3.8
VAR	.0	.0	.0	.0		.0
CALM	.4	.0	.6	.2		4.8
TOT OBS	131	76	174	114	515	4.6
TOT PCT	29.3	14.8	33.8	22.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.3	.5	2.0	.8	.1	.2	.0	.2	8.9	
NE	.2	.0	.5	1.1	3.3	.9	*	.2	.0	.0	4.0	
E	.0	.0	.2	1.4	.7	.1	.5	.2	.0	.0	2.4	
SE	.0	.0	.0	1.0	.6	.1	.2	.3	.0	.0	1.1	
S	.0	.0	.9	3.2	4.9	1.7	.0	.1	.0	.0	6.6	
SW	.2	*	1.7	5.0	4.2	1.2	.1	.0	.0	.0	10.2	
W	.1	.1	.0	.3	1.7	.4	.2	.0	.0	.0	10.1	
NW	.2	.0	.2	.2	1.7	.4	.6	.2	.0	.2	10.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.8	
TOT OBS	4	1	19	66	98	29	11	6	0	2	279	515
TOT PCT	.8	.2	3.7	12.8	19.0	5.6	2.1	1.2	.0	.4	54.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.4	.4	.4	.4	.4	.4	.4	.4
* OR >5000	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
* OR >3500	3.2	3.6	3.6	3.6	3.6	3.6	3.6	3.6
* OR >2000	8.0	9.1	9.1	9.3	9.3	9.3	9.3	9.3
* OR >1000	22.4	27.1	27.5	27.9	28.1	28.1	28.1	28.1
* OR >600	28.1	38.7	39.8	40.2	40.8	40.8	40.8	40.8
* OR >300	29.4	41.0	42.9	43.6	44.2	44.2	44.4	44.4
* OR >150	29.6	41.2	43.1	43.8	44.4	44.4	44.6	44.6
* OR > 0	30.0	41.6	43.8	44.6	45.2	45.2	45.4	45.4
TOTAL	158	219	231	235	238	238	239	239

TOTAL NUMBER OF OBS: 527 PCT FREQ NH <5/8: 54.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
12.9	14.8	8.8	10.2	6.7	7.2	9.0	11.1	19.4 .2	367

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.1	.2	.2	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.2	.2	.2	.0	.0	.0	.0	.6	
1<2	PCP	.0	.0	.1	.0	.1	.4	.2	.0	.0	.0	.8	
	NO PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.1	.0	.3	.4	.2	.0	.0	.0	1.1	
2<5	PCP	.2	.5	.2	.2	.1	.6	.2	.1	.0	.0	1.9	
	NO PCP	.1	*	.0	.5	.5	.3	.3	.1	.0	.0	1.8	
	TOT %	.3	.5	.2	.7	.6	.8	.5	.2	.0	.0	3.7	
5<10	PCP	.2	1.2	.4	2.0	3.9	3.3	.3	.5	.0	.0	11.9	
	NO PCP	2.4	2.5	1.3	2.1	3.6	4.8	1.4	1.7	.0	.1	19.9	
	TOT %	2.6	3.7	1.7	4.2	7.5	8.1	1.7	2.3	.0	.1	31.8	
10+	PCP	.5	.8	.2	.1	1.1	1.7	.1	.3	.0	.0	4.9	
	NO PCP	9.4	4.6	2.3	1.7	8.9	10.9	8.8	10.4	.0	.6	57.7	
	TOT %	9.9	5.5	2.5	1.9	10.0	12.5	8.9	10.7	.0	.6	62.6	
	TOT OBS												943
	TOT PCT	12.9	9.7	4.5	6.9	18.8	22.2	11.2	13.2	.0	.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.1	.0	.0	.0	.1	.0		.2	
	22+	.0	.0	.0	.1	.2	.2	.0	.0	.0		.5	
	TOT %	.0	.0	.0	.2	.2	.2	.0	.1	.0	.0	.7	
1<2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.1	.2	.0		.3	
	11-21	.0	.0	.0	.0	.1	.1	.0	.0	.0		.2	
	22+	.0	.0	.1	.0	.5	.3	.1	.0	.0		1.0	
	TOT %	.0	.0	.1	.0	.7	.4	.2	.2	.0	.0	1.7	
2<5	0-3	.0	.0	.0	.1	.4	.0	.0	.0	.0	.0	.5	
	4-10	.1	.1	.0	.4	.3	.1	.4	.1	.0		1.4	
	11-21	.1	*	.1	.1	.1	.3	.0	.1	.0		.7	
	22+	.2	.3	.1	.0	.4	.4	.1	.0	.0		1.6	
	TOT %	.3	.5	.2	.6	1.2	.9	.5	.2	.0	.0	4.2	
5<10	0-3	.5	.8	.3	.5	.2	.2	.2	.2	.0	.1	2.9	
	4-10	1.2	1.5	.3	2.2	1.3	1.8	.3	.7	.0		9.2	
	11-21	.6	.8	.5	1.5	3.3	2.3	.8	1.0	.0		10.9	
	22+	.2	.6	.5	.3	2.6	3.6	.5	.3	.0		8.6	
	TOT %	2.5	3.6	1.6	4.4	7.4	7.9	1.7	2.3	.0	.1	31.6	
10+	0-3	.9	.6	.3	.1	.6	.2	.2	1.0	.0	.6	4.6	
	4-10	4.5	2.0	1.3	1.2	3.3	2.6	3.7	4.4	.0		23.0	
	11-21	3.1	2.4	.5	.3	3.9	6.9	3.6	4.3	.0		24.9	
	22+	1.2	.3	.4	.3	2.2	2.5	1.2	1.0	.0		9.0	
	TOT %	9.7	5.3	2.5	1.9	10.0	12.2	8.6	10.6	.0	.6	61.5	
	TOT OBS												965
	TOT PCT	12.6	9.4	4.3	7.2	19.6	21.8	11.0	13.3	.0	.7	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.3	.6	3.8	15.0	16.3	6.9	1.9	.6	.0	.0	46.3	53.8	160
06&09	.0	.0	3.7	14.0	20.6	2.9	1.5	2.2	.0	.7	45.6	54.4	136
12&15	.8	.0	3.4	11.9	18.6	6.8	3.4	1.7	.0	.0	46.6	53.4	118
18&21	.8	.0	3.1	8.7	18.1	5.5	1.6	.0	.0	.8	38.6	61.4	127
TOT	4	1	19	68	99	30	11	6	0	2	240	301	541
PCT	.7	.2	3.5	12.6	18.3	5.5	2.0	1.1	.0	.4	44.4	55.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	.9	2.5	2.2	34.9	59.1	318
06&09	.8	.4	2.0	6.3	32.1	58.3	252
12&15	.0	.5	.0	3.2	36.1	60.2	216
18&21	.0	.9	1.4	5.4	22.1	70.3	222
TOT	3	7	16	42	319	621	1008
PCT	.3	.7	1.6	4.2	31.6	61.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.3	7.6	22.2	24.7	53.2	158
06&09	.0	3.8	19.7	28.8	51.5	132
12&15	.9	4.5	17.0	31.3	51.8	112
18&21	.8	4.0	14.4	24.8	60.8	125
TOT	4	27	98	143	236	527
PCT	.8	5.1	18.6	27.1	54.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
60/64	.0	.0	.0	.1	.3	1.4	.4	.2	23	2.6
55/59	.0	.0	.3	1.2	4.5	8.0	8.8	5.7	256	28.5
50/54	.0	.0	.1	1.4	7.4	11.1	15.8	8.4	397	44.3
45/49	.0	.0	.0	.4	2.3	7.0	5.7	5.4	188	21.0
40/44	.0	.0	.0	.0	.2	.9	1.7	.2	27	3.0
35/39	.0	.0	.0	.0	.0	.2	.0	.3	5	.6
TOTAL	0	0	4	30	132	259	291	181	897	100.0
PCT	.0	.0	.4	3.3	14.7	28.9	32.4	20.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
.6	.7	.2	.0	.1	.0	.1	.8	.0	.0
5.9	3.9	1.5	.5	2.5	2.0	4.5	7.6	.0	.1
6.0	4.2	2.7	2.4	9.0	10.5	4.3	4.6	.0	.6
.9	.8	.6	1.7	6.3	8.4	1.7	.6	.0	.1
.1	.1	.0	.1	1.3	1.1	.2	.1	.0	.0
.0	.1	.0	.1	.2	.0	.0	.1	.0	.0
13.6	9.8	5.0	4.8	19.3	22.0	10.8	13.8	.0	.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	67	63	60	53	46	43	43	53.1	387
06&09	67	60	58	52	45	43	34	52.2	304
12&15	62	59	58	52	46	45	41	51.5	285
18&21	61	60	58	52	44	36	36	51.4	297
TOT	67	61	59	52	45	43	34	52.1	1293

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	5.1	18.8	32.5	28.9	14.8	78	277
06&09	.0	3.8	12.8	28.1	35.7	19.6	81	239
12&15	.0	2.8	15.3	27.8	33.8	20.4	81	216
18&21	.0	2.9	11.2	27.2	32.0	26.7	82	206
TOT	0	35	138	272	303	186	80	934

JULY

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1868-1977

AREA 0029 HAWKE BAY
40.4S 177.0E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	-1 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.1	.0	.1	2	.0	.3
9/10	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
7/8	.0	.0	.0	.1	.6	.1	.0	6	.0	.9
6	.0	.0	.0	.1	.7	.0	.0	6	.0	.9
5	.0	.0	.1	.0	.7	.1	.0	7	.0	1.0
4	.0	.0	.0	.7	.7	.0	.0	10	.0	1.4
3	.0	.0	.0	1.0	1.4	.3	.0	19	.0	2.7
2	.0	.4	.6	2.7	2.1	.0	.0	41	.0	5.8
1	.0	.4	.4	2.7	1.0	.3	.0	34	.3	4.6
0	.0	.3	3.3	5.1	2.7	.1	.0	81	.1	11.4
-1	.0	.4	2.1	3.7	2.6	.0	.0	62	1.1	7.7
-2	.0	.4	3.8	3.8	1.1	.1	.0	66	.1	9.3
-3	.0	.4	4.3	2.7	.4	.0	.0	55	.6	7.3
-4	.4	1.6	5.8	4.4	.1	.0	.0	87	.1	12.3
-5	.3	3.8	5.7	2.3	.3	.0	.0	87	.6	11.8
-6	.0	1.6	4.1	1.3	.1	.0	.0	50	.0	7.1
-7/-8	.1	4.0	3.3	.9	.0	.0	.0	58	.3	8.0
-9/-10	.4	2.1	.1	.0	.0	.0	.0	19	.0	2.7
-11/-13	.3	.4	.6	.1	.0	.0	.0	10	.0	1.4
-14/-16	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
TOTAL	11	112	241	224	104	9	1	702	23	679
PCT	1.6	16.0	34.3	31.9	14.8	1.3	.1	100.0	3.3	96.7

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.7
1-2	.0	4.1	1.7	.0	.0	.0	5.8
3-4	.0	.8	1.7	.0	.0	.0	2.5
5-6	.0	.0	.9	.2	.2	.0	1.3
7	.0	.0	.2	.4	.0	.0	.6
8-9	.0	.2	.0	.5	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.2	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	5.6	4.6	1.1	.2	.0	11.7

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	1.8	1.2	.0	.0	.0	3.0
3-4	.0	1.3	1.9	.4	.0	.0	3.7
5-6	.0	.2	.9	.1	.1	.0	1.2
7	.0	.0	.3	.1	.0	.0	.5
8-9	.0	.0	.0	.7	.0	.0	.7
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.6	4.3	1.7	.1	.0	9.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8
1-2	.2	1.0	.6	.0	.0	.0	1.8
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.2	.0	.0	.2
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	1.6	.6	.6	.2	.0	3.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.1	.7	.1	.0	.0	.0	.8
3-4	.0	.0	.4	.1	.0	.0	.6
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.2	.1	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.0	1.1	.2	.0	.0	2.3

PERIOD: (OVER-ALL) 1963-1977

JULY

TABLE 18 (CONT)

AREA 0029 HAWKE BAY 40.4S 177.0E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6
1-2	.3	2.5	.4	.0	.0	.0	3.2
3-4	.0	1.4	3.9	.7	.0	.0	6.0
5-6	.0	.7	2.2	.6	.0	.0	3.5
7	.0	.0	1.0	.6	.4	.0	2.0
8-9	.0	.2	.9	.6	.2	.0	1.9
10-11	.0	.2	.2	.7	.0	.0	1.0
12	.0	.0	.0	.4	.4	.0	.8
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.4	8.5	3.8	1.2	.0	19.3

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.1	.0	.0	.0	.0	.3
1-2	.1	3.3	3.0	.0	.0	.0	6.3
3-4	.0	1.1	6.3	.3	.0	.0	7.7
5-6	.0	.5	2.2	1.2	.1	.0	4.0
7	.0	.0	.8	.9	.1	.0	1.8
8-9	.0	.0	.2	.3	.1	.4	1.0
10-11	.0	.1	.1	.9	.0	.2	1.2
12	.0	.0	.2	.3	.3	.0	.8
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.2	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.0	12.8	4.1	.7	.7	23.6

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.7	.0	.0	.0	.0	.9
1-2	.0	2.6	.4	.0	.0	.0	3.0
3-4	.0	1.7	3.3	.0	.0	.0	5.2
5-6	.0	.4	1.3	.8	.4	.0	2.9
7	.0	.0	.4	.2	.0	.0	.6
8-9	.0	.2	.2	.2	.2	.0	.8
10-11	.0	.0	.0	.2	.2	.0	.4
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	5.6	5.9	1.6	1.0	.0	14.3

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.2	.0	.0	.0	.0	.4	
1-2	.7	3.4	1.4	.0	.0	.0	5.5	
3-4	.0	.9	2.8	.2	.0	.0	4.0	
5-6	.0	.2	2.0	.3	.0	.0	2.5	
7	.0	.2	1.1	.3	.0	.0	1.6	
8-9	.0	.0	.1	.1	.0	.0	.2	
10-11	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.1	.0	.0	.0	.1	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.2	.2	.0	.4	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.9	5.0	7.4	1.2	.4	.0	15.0	99.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.4	2.9	.0	.0	.0	.0	5.3	
1-2	1.5	19.4	8.6	.0	.0	.0	29.6	
3-4	.0	7.5	20.3	1.8	.0	.0	29.6	
5-6	.0	2.0	9.7	3.1	.7	.0	15.5	
7	.0	.2	3.8	2.6	.4	.0	7.1	
8-9	.0	.7	1.3	2.6	.4	.4	5.5	
10-11	.0	.2	.2	2.0	.2	.2	2.9	
12	.0	.0	.2	1.1	.7	.0	2.0	
13-16	.0	.0	.2	.4	.4	.0	1.1	
17-19	.0	.0	.2	.2	.2	.0	.7	
20-22	.0	.0	.0	.2	.2	.0	.4	
23-25	.0	.0	.0	.0	.4	.0	.4	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.0	32.9	44.6	14.1	3.8	.7	100.0	453

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	3.6	8.2	6.4	3.8	2.0	1.2	.6	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	136	5
6-7	.0	.6	2.4	6.6	5.2	2.8	3.4	1.6	3.0	1.0	.4	.2	.4	.2	.0	.0	.0	.0	.0	139	9
8-9	.0	.0	1.8	2.2	2.4	2.8	2.8	1.4	2.6	1.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	88	9
10-11	.0	.4	3.2	2.2	1.4	.6	.8	.2	1.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	51	7
12-13	.0	.0	2.4	2.6	1.4	.2	.6	.6	.4	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	42	7
>13	.0	.0	.0	1.0	.4	.2	.6	.0	.2	.0	.6	.2	.0	.2	.0	.0	.0	.0	.0	17	12
INDET	.2	.0	1.6	1.4	.6	.0	.0	.6	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	26	7
TOTAL	5	23	98	112	76	43	47	25	40	15	7	2	4	2	0	0	0	0	0	499	7
PCT	1.0	4.6	19.6	22.4	15.2	8.6	9.4	5.0	8.0	3.0	1.4	.4	.8	.4	.0	.0	.0	.0	.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1868-1977

AREA 0029 HAWKE BAY
40.3S 177.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	2.5	.0	.9	.0	.0	.0	.0	3.3	.9	.0	2.7	.0	.9	.0		92.2
NE	5.6	1.8	6.4	.0	.0	.0	.0	13.8	3.3	.0	2.6	.0	1.0	2.1		77.2
E	10.9	3.3	8.8	.0	.0	.0	.0	25.2	8.0	.0	1.7	.0	.0	.0		65.1
SE	7.2	4.1	6.5	.0	.0	.0	.0	16.4	3.1	.0	1.7	.0	.0	.0		78.8
S	14.6	1.9	4.0	.0	.0	.0	.3	20.9	5.3	.0	1.1	.0	.6	.0		72.0
SW	10.6	2.2	5.2	.0	.0	.0	1.4	18.8	4.3	.8	1.1	.0	.0	.0		75.5
W	1.3	1.3	.0	.0	.0	.0	.0	2.5	4.4	3.5	2.5	.0	.0	.0		87.1
NW	1.1	.8	.0	.0	.0	.0	.0	1.9	1.1	2.3	1.3	.0	.0	.0		93.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	6.7	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0	.0	.0	.0		93.3
TOT PCT	7.3	1.9	3.7	.0	.0	.0	.3	13.0	3.6	.8	1.7	.0	.3	.2		80.5
TOT OBS:	892															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	8.1	1.0	3.4	.0	.0	.0	.0	12.1	2.7	.0	2.0	.0	.3	.0		82.8
06&09	10.0	2.2	4.4	.0	.0	.0	.4	16.6	4.4	.9	.0	.0	.9	.0		77.7
12&15	4.5	3.0	3.0	.0	.0	.0	.5	10.9	4.5	1.5	2.0	.0	.5	1.0		79.6
18&21	5.6	1.5	4.6	.0	.0	.0	.5	12.3	3.1	1.0	2.6	.0	.0	.0		81.0
TOT PCT	7.3	1.8	3.8	.0	.0	.0	.3	13.0	3.6	.8	1.6	.0	.4	.2		80.5
TOT OBS:	922															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.0	5.2	5.9	1.7	.2	.0		13.9	12.8	15.5	17.1	13.5	8.5	13.0	14.1	15.2	15.1
NE	.6	3.8	5.6	1.0	.3	.0		11.2	13.6	10.4	7.0	16.2	10.4	12.2	8.2	13.2	7.1
E	.4	2.7	2.5	.6	.1	.0		6.3	12.3	5.2	10.5	6.8	6.3	5.4	6.6	9.8	3.5
SE	.4	2.7	3.7	.9	.0	.0		7.7	13.2	7.7	14.0	8.5	7.7	7.1	4.3	8.6	5.0
S	1.5	5.9	6.6	3.3	.7	.0		18.0	14.5	15.2	14.0	17.2	24.4	18.3	25.8	10.8	24.8
SW	1.5	4.8	6.5	4.6	1.9	.2		19.4	17.5	21.0	16.7	18.5	19.3	19.9	16.0	18.4	20.3
W	.2	3.1	3.7	1.1	.3	.0		8.4	14.3	10.2	5.3	6.5	8.5	5.3	9.4	8.8	12.5
NW	1.1	4.8	6.4	1.1	.2	.0		13.5	12.5	13.8	13.6	10.2	13.2	16.2	15.6	13.6	11.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.5							1.5	.0	1.0	1.8	2.7	1.6	2.5	.0	1.6	.0
TOT OBS	91	369	457	160	40	2	1119		14.0	296	57	130	123	198	64	125	108
TOT PCT	8.1	33.0	40.8	14.3	3.6	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.2	7.1	2.5	1.2	.0		13.9	12.8	15.7	11.3	13.3	15.2
NE	1.8	6.2	2.5	.7	.0		11.2	13.6	9.8	13.6	11.3	10.4
E	1.8	2.8	1.3	.3	.0		6.3	12.3	6.1	6.6	5.7	6.9
SE	1.3	3.8	2.3	.2	.0		7.7	13.2	8.7	8.2	6.4	6.9
S	4.5	6.3	5.0	1.9	.2		18.0	14.5	15.0	20.4	20.1	17.2
SW	4.0	5.9	5.6	3.4	.5		19.4	17.5	20.3	18.9	19.0	19.3
W	1.6	3.5	2.8	.6	.0		8.4	14.3	9.4	7.4	6.3	10.5
NW	2.7	7.2	3.4	.2	.1		13.5	12.5	13.7	11.5	16.0	12.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.5						1.5	.0	1.1	2.2	1.9	.9
TOT OBS	251	479	283	95	9	1119		14.0	353	273	262	231
TOT PCT	22.4	42.8	25.5	8.5	.8		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS) 11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.1	6.8	35.4	37.1	16.4	2.8	.3	13.9	100.0	353
06&09	2.2	7.7	30.0	43.2	12.5	4.4	.0	14.0	100.0	273
12&15	1.9	4.2	29.8	43.9	15.6	4.2	.4	15.0	100.0	262
18&21	.9	7.8	36.4	40.3	11.7	3.0	.0	13.1	100.0	231
TOT	17	74	369	457	160	40	2	14.0		1119
PCT	1.5	6.6	33.0	40.8	14.3	3.6	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.8	1.6	4.5	3.1		4.8
NE	2.6	1.3	3.9	4.7		5.5
E	.4	1.6	2.9	3.4		6.2
SE	.6	.7	4.0	3.4		6.4
S	1.3	1.7	5.8	5.1		6.0
SW	3.5	3.0	8.1	5.4		5.3
W	3.7	1.7	2.5	1.1		3.7
NW	5.2	2.0	4.2	1.0		3.7
VAR	.0	.0	.0	.0		.0
CALM	.4	.6	.8	.4		4.7
TOT OBS	114	74	194	147	529	5.2
TOT PCT	21.6	14.0	36.7	27.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.2	.2	.4	1.7	1.3	.2	.2	.0	.2	8.6	
NE	.2	.0	.2	1.8	3.1	.5	.2	.0	.0	.0	6.6	
E	.0	.0	.6	1.6	2.1	.3	.5	.0	.0	.0	3.2	
SE	.2	.0	*	2.8	2.3	.8	.2	.0	.0	.0	2.3	
S	.3	.0	.7	3.8	3.6	.7	.5	.0	.2	.0	4.0	
SW	.0	.0	1.3	4.3	3.4	1.6	.4	.2	.0	.2	8.8	
W	.2	.0	.0	.5	1.4	.6	.0	.0	.0	.1	6.2	
NW	.0	.0	.2	.0	1.8	.9	.2	.0	.0	.0	9.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.2	.6	.0	.0	.0	.0	.2	1.1	
TOT OBS	5	1	17	81	106	36	11	2	1	4	265	529
TOT PCT	.9	.2	3.2	15.3	20.0	6.8	2.1	.4	.2	.8	50.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.7	.9	.9	.9	.9	.9	.9	.9
= OR >5000	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3
= OR >3500	2.2	3.1	3.5	3.5	3.5	3.5	3.5	3.5
= OR >2000	7.9	9.9	10.3	10.3	10.3	10.3	10.3	10.3
= OR >1000	22.9	29.3	30.8	30.8	30.8	30.8	30.8	30.8
= OR >400	27.8	41.0	45.4	45.6	45.6	45.6	45.6	45.6
= OR >300	28.4	42.1	48.0	48.5	48.7	48.7	48.7	48.7
= OR >150	28.4	42.1	48.2	48.7	48.9	48.9	48.9	48.9
= OR > 0	28.9	42.9	48.9	49.6	49.8	49.8	49.8	49.8
TOTAL	158	234	267	271	272	272	272	272

TOTAL NUMBER OF OBS: 546 PCT FREQ NH <5/8: 50.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
11.6	11.9	9.3	8.8	8.1	7.7	9.6	10.9	21.9	.2	570

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.1	.1	.0	.0	.0	.0	.1	.0	.0	.0	.3	
1<2	PCP	.0	.1	.0	.0	.8	.1	.0	.0	.0	.0	1.0	
	NO PCP	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	
	TOT %	.1	.1	.0	.0	.8	.1	.1	.0	.0	.0	1.2	
2<5	PCP	.2	.1	.3	.5	1.2	.8	.0	.0	.0	.0	3.1	
	NO PCP	.0	.2	.1	.2	.4	1.4	.0	.2	.0	.0	2.6	
	TOT %	.2	.3	.4	.7	1.6	2.2	.0	.2	.0	.0	5.7	
5<10	PCP	.2	.8	1.0	.8	1.2	1.9	.0	.3	.0	.1	6.3	
	NO PCP	2.5	2.3	1.8	2.4	5.0	3.3	2.3	2.8	.0	.3	22.7	
	TOT %	2.7	3.1	2.8	3.2	6.2	5.2	2.3	3.0	.0	.4	29.0	
10+	PCP	.0	.4	.3	.1	.5	1.0	.1	.0	.0	.0	2.6	
	NO PCP	9.3	6.8	3.1	4.2	8.3	11.9	6.3	10.0	.0	1.2	61.0	
	TOT %	9.3	7.2	3.4	4.3	8.8	12.9	6.4	10.0	.0	1.2	63.6	
	TOT OBS												893
	TOT PCT	12.5	10.9	6.7	8.2	17.4	20.4	8.9	13.3	.0	1.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.1	.0	.0	.0	.1	.1	.0	.0		.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.1	.0	.0	.0	.1	.1	.0	.0	.0	.4	
1<2	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.1	.0	.0	.3	.0	.1	.0	.0		.6	
	11-21	.0	.0	.0	.0	.2	.1	.0	.1	.0		.4	
	22+	.0	.0	.0	.0	.2	.1	.0	.0	.0		.3	
	TOT %	.1	.1	.0	.0	.8	.2	.1	.1	.0	.0	1.4	
2<5	0-3	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.4	.4	.2	.0	.1	.0		1.1	
	11-21	.1	.2	.4	.2	.3	.4	.0	.1	.0		2.0	
	22+	.0	.1	.0	.1	.7	1.5	.0	.0	.0		2.4	
	TOT %	.2	.3	.4	.7	1.6	2.2	.0	.2	.0	.0	5.8	
5<10	0-3	.2	.1	.2	.2	.4	.1	.0	.3	.0	.4	1.9	
	4-10	.6	1.3	1.1	.7	1.8	1.1	.7	.7	.0		7.9	
	11-21	1.4	1.4	.8	1.7	1.9	2.2	1.1	1.6	.0		11.9	
	22+	.5	.4	.7	.6	2.3	1.7	.5	.5	.0		7.2	
	TOT %	2.7	3.1	2.8	3.3	6.3	5.1	2.2	3.0	.0	.4	28.9	
10+	0-3	.7	.6	.1	.2	1.3	1.7	.3	.8	.0	1.2	6.9	
	4-10	3.9	2.2	2.0	1.6	3.1	3.7	2.4	4.2	.0		23.0	
	11-21	3.7	3.7	1.3	2.1	3.5	4.2	2.5	4.4	.0		25.4	
	22+	1.0	.7	.0	.4	1.0	3.3	1.2	.5	.0		8.1	
	TOT %	9.3	7.1	3.4	4.3	9.0	12.9	6.3	9.9	.0	1.2	63.4	
	TOT OBS												904
	TOT PCT	12.5	10.8	6.6	8.3	17.6	20.5	8.8	13.3	.0	1.7	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.1	.0	3.2	15.1	20.5	7.6	3.2	.5	.0	.5	51.9	48.1	185
06&09	.7	.7	4.1	16.4	19.9	4.8	3.4	.0	.0	.7	50.7	49.3	146
12&15	.0	.0	1.9	11.1	15.7	5.6	.0	.9	.9	.9	37.0	63.0	108
18&21	1.7	.0	2.6	14.7	24.1	8.6	.9	.0	.0	.9	53.4	46.6	116
TOT	5	1	17	81	112	37	12	2	1	4	272	283	555
PCT	.9	.2	3.1	14.6	20.2	6.7	2.2	.4	.2	.7	49.0	51.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.7	.3	1.0	5.3	28.0	64.7	300
06&09	.0	.4	2.1	8.1	30.6	58.7	235
12&15	.0	.0	1.0	4.4	31.5	63.1	203
18&21	.0	1.0	1.5	4.6	24.5	68.4	196
TOT	2	4	13	53	268	594	934
PCT	.2	.4	1.4	5.7	28.7	63.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.1	4.3	21.2	31.0	47.8	184
06&09	.7	5.5	24.1	26.9	49.0	145
12&15	.0	1.9	15.4	24.0	60.6	104
18&21	1.8	4.4	20.4	34.5	45.1	113
TOT	5	23	113	160	273	546
PCT	.9	4.2	20.7	29.3	50.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.1	.0	.0	.0	.0	.0	.0	.0	1	.1
65/69	.0	.0	.1	.1	.3	.0	.0	.0	5	.6
60/64	.0	.0	.3	.3	1.0	.9	.9	.7	37	4.2
55/59	.0	.0	.5	.7	3.6	9.4	11.7	6.0	280	31.9
50/54	.0	.0	.2	1.7	8.4	8.7	16.6	10.0	401	45.7
45/49	.0	.0	.0	.3	2.5	4.1	5.1	4.1	142	16.2
40/44	.0	.0	.0	.0	.0	.6	.3	.2	10	1.1
35/39	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
TOTAL	1	0	10	28	140	207	306	185	877	100.0
PCT	.1	.0	1.1	3.2	16.0	23.6	34.9	21.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
.1	.0	.0	.0	.0	.3	.0	.1	.0	.0
1.2	.6	.1	.3	.1	.4	.4	1.0	.0	.1
7.8	5.3	2.4	1.9	1.5	3.4	2.7	5.9	.0	1.0
5.6	5.7	3.1	3.6	8.9	8.8	4.1	5.5	.0	.5
.3	.9	1.0	1.4	6.1	5.8	.5	.2	.0	.0
.1	.0	.0	.0	.0	.6	.3	.0	.0	.1
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
15.1	12.5	6.5	7.2	16.7	19.4	8.0	12.8	.0	1.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	66	64	61	54	48	44	41	54.1	364
06&09	73	63	59	53	47	45	42	53.1	274
12&15	64	59	57	52	46	44	43	51.9	267
18&21	65	61	59	53	46	43	38	52.6	233
TOT	73	63	59	53	46	44	38	53.0	1138

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	5.7	20.3	22.1	34.2	17.8	78	281
06&09	.5	3.7	18.3	25.7	31.2	20.6	80	218
12&15	.0	1.9	9.9	23.9	40.8	23.5	82	213
18&21	.0	5.2	13.5	20.7	37.3	23.3	81	193
TOT	1	38	144	209	323	190	80	905

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.3	.2	.0	.2	4	.0	.6
11/13	.0	.0	.0	.2	.0	.2	.2	.0	3	.0	.5
9/10	.0	.0	.0	.2	.0	.3	.2	.0	4	.0	.6
7/8	.0	.0	.0	.5	.0	.3	.0	.0	5	.0	.8
5	.0	.2	.3	.6	1.6	.5	.0	.0	21	.2	3.1
4	.0	.0	.2	.9	1.9	.3	.2	.0	22	.0	3.5
3	.0	.0	.2	1.7	1.6	.5	.0	.0	25	.0	3.9
2	.0	.0	.5	2.8	2.7	.3	.0	.0	40	.2	6.1
1	.0	.0	.2	4.1	2.7	.6	.0	.0	48	.0	7.6
0	.0	.2	2.5	6.1	2.5	.0	.0	.0	72	.0	11.3
-1	.0	.2	4.6	5.6	.8	.0	.0	.0	72	.5	10.9
-2	.2	.8	2.2	4.9	1.1	.0	.0	.0	58	.2	9.0
-3	.0	.5	3.8	2.8	.5	.3	.0	.0	50	.2	7.7
-4	.0	.8	4.7	3.1	.5	.2	.0	.0	59	.3	9.0
-5	.0	2.0	5.2	1.6	.2	.0	.0	.0	57	.2	8.8
-6	.2	1.3	2.5	.5	.0	.0	.0	.0	28	.0	4.4
-7/-8	.2	2.7	2.4	.8	.0	.0	.0	.0	36	.2	5.8
-9/-10	.3	.8	1.7	.3	.0	.0	.0	.0	20	.0	3.1
-11/-13	.3	.5	.5	.0	.0	.0	.0	.0	8	.0	1.3
-14/-16	.0	.2	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	7	63	199	236	103	23	3	1	635	11	624
PCT	1.1	9.9	31.3	37.2	16.2	3.6	.5	.2	100.0	1.7	98.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.2	.0	.0	.0	.9
1-2	.5	1.6	1.5	.0	.0	.0	3.6
3-4	.2	1.8	1.7	.2	.0	.0	3.9
5-6	.0	.0	1.5	.5	.0	.0	1.9
7	.0	.0	.2	.2	.0	.0	.4
8-9	.0	.0	.2	.0	.2	.0	.4
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.0	5.2	.8	.5	.0	11.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8
1-2	.3	2.1	1.4	.0	.0	.0	3.8
3-4	.0	.9	2.6	.3	.0	.0	3.8
5-6	.0	.2	2.2	.5	.0	.0	2.8
7	.0	.0	.2	.5	.2	.0	1.0
8-9	.0	.2	.0	.5	.0	.0	.7
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.2	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.2	.0	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.0	6.7	1.7	.7	.0	13.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	1.7	.2	.0	.0	.0	1.9
3-4	.0	.9	1.8	.4	.0	.0	3.1
5-6	.0	.2	.5	.0	.0	.0	.7
7	.0	.0	.2	.2	.0	.0	.5
8-9	.0	.0	.5	.2	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.2	3.1	.9	.0	.0	7.2

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.3	.0	.0	.0	.0	.8
1-2	.0	1.3	.4	.0	.0	.0	1.7
3-4	.0	.8	1.3	.0	.0	.0	2.1
5-6	.0	.2	1.7	.3	.0	.0	2.2
7	.0	.0	.7	.5	.0	.0	1.1
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.6	4.3	.7	.0	.0	8.1

PERIOD: (OVER-ALL) 1963-1977 AUGUST AREA 0029 HAWKE BAY

TABLE 18 (CONT) 40.3S 177.1E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5
1-2	.2	2.0	1.6	.0	.0	.0	3.8
3-4	.0	.8	1.5	.0	.0	.0	2.3
5-6	.0	.2	2.6	1.0	.2	.0	4.0
7	.0	.0	.2	.9	.2	.0	1.3
8-9	.0	.0	.2	.0	.2	.0	.4
10-11	.0	.0	.0	.2	.6	.0	.9
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.3	.0	.6
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.5	6.1	2.3	1.9	.0	14.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.5	.2	.0	.0	.0	1.2
1-2	.5	2.8	1.5	.0	.0	.0	4.8
3-4	.2	1.0	3.1	.2	.0	.0	5.0
5-6	.0	.0	1.1	.6	.2	.0	1.9
7	.0	.0	.7	1.7	.7	.0	3.1
8-9	.0	.0	.0	.5	.2	.0	.7
10-11	.0	.0	.0	.7	.5	.0	1.2
12	.0	.0	.0	.7	.0	.0	.7
13-16	.0	.0	.5	.9	.5	.0	1.8
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.1	.0	.1
23-25	.0	.0	.0	.0	.5	.0	.5
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	4.3	7.5	5.4	2.7	.0	21.0

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	2.1	1.1	.0	.0	.0	3.2
3-4	.2	1.0	2.1	.2	.0	.0	3.5
5-6	.0	.0	.3	.4	.0	.0	.7
7	.0	.0	.5	.6	.0	.0	1.1
8-9	.0	.0	.0	.2	.2	.0	.5
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.7	4.0	1.8	.2	.0	10.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	1.0	.0	.0	.0	.0	1.2	
1-2	.3	3.4	1.1	.0	.0	.0	4.8	
3-4	.0	1.7	2.6	.1	.0	.0	4.4	
5-6	.0	.0	1.2	.0	.0	.0	1.2	
7	.0	.0	.5	.2	.0	.0	.7	
8-9	.0	.2	.1	.0	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.2	.0	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	6.3	5.7	.3	.0	.0	12.8	97.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.1	4.7	.5	.0	.0	.0	9.3	
1-2	1.8	16.7	8.8	.0	.0	.0	27.3	
3-4	.7	8.4	16.9	1.4	.0	.0	27.6	
5-6	.0	.9	10.8	3.2	.5	.0	15.3	
7	.0	.0	3.2	4.7	1.1	.0	9.0	
8-9	.0	.5	1.1	1.4	.9	.0	3.8	
10-11	.0	.0	.0	1.1	1.6	.0	2.7	
12	.0	.0	.0	.9	.2	.0	1.1	
13-16	.0	.0	.5	.9	.7	.0	2.0	
17-19	.0	.0	.2	.0	.0	.0	.2	
20-22	.0	.0	.2	.2	.5	.0	.9	
23-25	.0	.0	.0	.0	.5	.0	.5	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.5	31.6	42.2	13.8	5.9	.0	100.0	443

PERIOD: (OVER-ALL) 1949-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	4.7	7.5	4.9	5.5	1.8	1.2	.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	136	5
6-7	.0	.8	2.9	6.5	9.8	3.1	3.3	1.0	1.2	.2	.4	.4	.0	.0	.0	.0	.0	.0	.0	131	7
8-9	.0	.0	.8	2.9	5.3	2.4	4.5	.8	1.4	.8	.2	.6	.8	.0	.0	.0	.0	.0	.0	104	10
10-11	.0	.6	.8	.6	1.4	.2	1.4	.8	.6	1.4	.2	.6	.2	.0	.0	.0	.0	.0	.0	44	11
12-13	.0	.0	1.0	1.4	.6	.2	.2	.0	.2	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	20	8
>13	.0	.0	.0	2.4	.4	.2	.4	.0	.8	.0	.4	.0	.0	.2	.0	.0	.0	.0	.0	24	10
INDET	1.0	.2	1.0	.4	1.6	.8	.4	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	6
TOTAL	7	32	71	97	125	44	58	13	85	15	7	8	6	1	0	0	0	0	0	509	8
PCT	1.4	6.3	13.9	19.1	24.6	8.6	11.4	2.6	4.9	2.9	1.4	1.6	1.2	.2	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1868-1977

AREA 0029 HAWKE BAY
40.3S 177.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	3.5	.7	2.5	.0	.0	.0	.0	6.7	1.6	1.2	2.0	.0	2.0		.0	86.5
NE	6.0	2.0	5.5	.0	.0	.0	.0	12.4	5.7	.0	4.2	.0	1.0		.2	76.4
E	7.0	9.1	2.9	.0	.0	.0	.0	18.9	1.6	.0	.8	.0	1.6		2.9	74.1
SE	3.3	9.9	2.1	.0	.0	.0	.0	15.2	4.1	.0	7.4	.0	.0		.0	73.3
S	5.3	8.6	4.5	.0	.0	.0	.0	18.4	8.9	.0	1.8	.0	.0		.0	70.9
SW	6.9	7.3	.9	.0	.0	.0	.0	15.0	4.1	.7	1.4	.0	.0		.0	78.8
W	1.3	2.2	1.3	.0	.0	.0	.0	4.7	2.2	.0	.0	.0	.0		.0	93.1
NW	1.2	.6	2.0	.0	.0	.0	.0	3.8	.6	.2	1.6	.0	1.4		.0	92.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	7.1	.0		.0	85.7
TOT PCT	4.2	4.5	2.7	.0	.0	.0	.0	11.3	3.8	.3	2.3	.1	.8		.2	81.3
TOT OBS:	930															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	3.8	2.8	1.0	.0	.0	.0	.0	7.7	2.8	.0	1.7	.0	.7		.0	87.1
06&09	3.8	5.5	2.5	.0	.0	.0	.0	11.9	3.4	.0	2.5	.4	.4		.0	81.4
12&15	3.4	6.3	3.4	.0	.0	.0	.0	13.0	1.9	1.9	3.8	.0	1.0		.5	77.9
18&21	5.3	4.0	4.4	.0	.0	.0	.0	13.2	7.0	.4	1.3	.0	.9		.4	76.7
TOT PCT	4.1	4.5	2.7	.0	.0	.0	.0	11.2	3.8	.5	2.3	.1	.7		.2	81.2
TOT OBS:	958															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.2	7.2	5.6	1.8	.1	.0		15.9	12.3	16.8	16.3	12.5	18.0	19.3	18.0	9.8	15.3
NE	1.3	3.0	3.1	.9	.1	.0		10.5	12.8	11.1	10.7	10.4	8.9	8.3	7.9	12.1	6.8
E	.1	3.0	2.7	.9	.3	.0		7.0	14.4	7.2	9.0	7.1	7.8	9.1	7.9	4.5	3.3
SE	.4	2.9	2.4	.6	.4	.1		6.8	14.0	7.4	11.0	9.5	5.1	6.8	4.3	5.9	3.5
S	.8	5.6	6.0	3.3	2.5	.1		18.4	17.8	16.5	19.7	20.9	18.0	17.4	19.8	19.2	19.2
SW	1.0	3.7	5.5	2.4	2.2	*		14.9	18.1	15.6	10.7	13.0	14.2	13.8	11.6	21.2	15.7
W	.6	3.3	2.7	1.3	.1	.0		8.0	12.7	7.2	6.0	3.9	8.4	7.2	11.9	11.9	9.3
NW	2.0	6.1	5.6	2.5	.6	.2		17.0	14.0	17.2	16.7	14.0	17.4	15.5	17.4	14.7	24.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.6							1.6	.0	.7	.0	2.7	2.0	2.5	1.2	.7	2.5
TOT OBS	108	415	425	163	75	5	1191		14.6	270	75	148	151	201	82	143	121
TOT PCT	9.1	34.8	35.7	13.7	6.3	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.5	8.0	3.8	.5	.1		15.9	12.3	16.7	15.3	18.9	12.3
NE	2.6	4.1	3.4	.4	.0		10.5	12.8	11.0	12.6	8.2	9.7
E	1.2	3.6	1.4	.8	.1		7.0	14.4	7.6	7.4	8.7	4.0
SE	1.4	3.6	1.2	.3	.3		6.8	14.0	8.3	7.3	6.1	4.8
S	3.4	6.7	4.3	3.4	.7		18.4	17.8	17.2	19.5	18.1	19.2
SW	2.7	4.6	4.5	2.3	.8		14.9	18.1	14.6	13.6	13.2	18.7
W	1.7	4.3	1.6	.4	.0		8.0	12.7	7.0	6.2	8.6	10.7
NW	4.2	7.1	4.0	1.3	.4		17.0	14.0	17.1	15.7	16.1	19.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.6						1.6	.0	.6	2.3	2.1	1.5
TOT OBS	265	500	286	112	28	1191		14.6	345	299	283	264
TOT PCT	22.3	42.0	24.0	9.4	2.4		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	.6	8.1	37.7	32.5	15.4	5.8	.0	14.4	100.0	345
06&09	2.3	8.7	33.1	37.8	11.7	4.7	1.7	14.3	100.0	299
12&15	2.1	3.9	32.2	39.9	15.9	6.0	.0	15.5	100.0	283
18&21	1.5	9.1	36.0	33.0	11.4	9.1	.0	14.3	100.0	264
TOT	19	89	415	425	163	75	5	14.6		1191
PCT	1.6	7.5	34.8	35.7	13.7	6.3	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.8	1.8	5.6	1.4		4.4
NE	2.4	1.4	4.7	3.7		5.4
E	.9	1.0	3.1	2.9		6.0
SE	1.2	.7	2.7	3.4		6.1
S	2.8	2.0	8.8	4.9		5.5
SW	4.0	2.6	5.4	5.1		5.1
W	4.7	2.2	2.0	1.0		3.3
NW	4.6	1.8	5.1	1.8		4.2
VAR	.0	.0	.0	.0		.0
CALM	.7	.0	.2	.0		1.8
TOT OBS	137	74	205	131	547	4.9
TOT PCT	25.0	13.5	37.5	23.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.1	.0	.0	.4	.6	1.4	.0	.0	.0	.2	9.8	
NE	.2	.0	.0	2.6	2.0	.8	.7	.0	.0	.0	5.9	
E	.0	.2	.2	2.5	1.6	.8	.0	.2	.0	.0	2.5	
SE	.4	.0	.5	1.9	1.8	.3	.2	.0	.0	.0	3.0	
S	.0	.0	1.2	2.8	4.9	1.2	.3	.2	.0	.0	7.4	
SW	.2	.2	.8	2.8	2.6	1.7	.3	.0	.0	.0	8.5	
W	.0	.0	.0	.3	1.3	.2	.1	.0	.0	.2	7.7	
NW	.0	.0	.0	.4	1.1	1.8	.2	.0	.2	.2	9.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.7	
TOT OBS	5	2	15	74	88	45	10	2	1	3	300	547
TOT PCT	.9	.4	2.7	13.9	16.1	8.2	1.8	.4	.2	.5	54.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.4	.7	.7	.7	.7	.7	.7	.7
= OR >5000	.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1
= OR >3500	2.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9
= OR >2000	8.4	11.1	11.1	11.1	11.1	11.1	11.1	11.1
= OR >1000	17.7	26.6	27.0	27.0	27.0	27.0	27.0	27.0
= OR >600	23.6	39.1	40.4	40.5	40.5	40.5	40.5	40.5
= OR >300	24.8	41.1	42.9	43.4	43.4	43.4	43.4	43.4
= OR >150	24.8	41.3	43.0	43.8	43.8	43.8	43.8	43.8
= OR > 0	24.8	41.6	43.4	44.3	44.5	44.5	44.6	44.6
TOTAL	139	233	243	248	249	249	250	250

TOTAL NUMBER OF OBS: 560 PCT FREQ NH <5/8: 55.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.0	15.4	12.7	8.5	8.1	7.3	11.4	7.6	18.6	.3	590

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
<1/2	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.3	
	PCP	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.2	
1/2<1	NO PCP	.1	*	.1	.2	.0	.0	.0	.1	.0	.0	.4	
	TOT %	.1	*	.1	.2	.2	.1	.0	.1	.0	.0	.6	
	PCP	.0	.1	.0	.0	.1	.2	.0	.1	.0	.0	.5	
1<2	NO PCP	.0	.0	.0	.1	.0	.2	.0	.0	.0	.1	.4	
	TOT %	.0	.1	.0	.1	.1	.4	.0	.1	.0	.1	1.0	
	PCP	.0	.2	.0	.1	.5	.1	.1	.0	.0	.0	1.0	
2<5	NO PCP	.1	.3	.0	.2	.5	.3	.1	.2	.0	.0	1.7	
	TOT %	.1	.5	.0	.3	.9	.4	.2	.2	.0	.0	2.7	
	PCP	.4	1.0	.9	.6	1.5	1.4	.1	.0	.0	.0	5.9	
5<10	NO PCP	3.6	2.6	1.7	1.6	4.0	3.0	1.4	5.4	.0	.1	23.5	
	TOT %	4.0	3.6	2.7	2.2	5.6	4.3	1.5	5.4	.0	.1	29.4	
	PCP	.6	.1	.3	.4	1.0	.5	.2	.6	.0	.0	3.6	
10+	NO PCP	10.4	6.6	3.5	3.3	10.3	9.5	6.6	11.1	.0	1.2	62.4	
	TOT %	11.0	6.6	3.8	3.7	11.2	10.0	6.8	11.7	.0	1.2	66.0	
	TOT OBS												929
	TOT PCT	15.2	10.8	6.5	6.5	18.1	15.2	8.6	17.5	.0	1.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
<1/2	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.3	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.1	*	.1	.1	.0	.1	.0	.0	.0		.3	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.2	.1	.0	.1	.0		.3	
	TOT %	.1	*	.1	.2	.2	.2	.0	.1	.0	.0	.7	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.1	.0	.1	.0	.2	.1	.0	.0		.5	
	22+	.0	.0	.0	.0	.1	.2	.0	.1	.0		.4	
	TOT %	.0	.1	.0	.1	.1	.4	.1	.1	.0	.2	1.2	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	4-10	.0	.2	.1	.2	.1	.2	.2	.0	.0		.9	
	11-21	.0	.2	.0	.0	.5	.1	.0	.0	.0		.8	
	22+	.1	.1	.0	.1	.4	.3	.0	.2	.0		1.2	
	TOT %	.1	.5	.1	.3	1.0	.6	.2	.2	.0	.0	2.9	
	0-3	.1	.4	.0	.0	.1	.2	.1	.3	.0	.1	1.4	
5<10	4-10	1.7	.5	.9	.6	1.2	.8	.3	1.6	.0		7.5	
	11-21	1.7	2.2	1.1	.9	1.8	1.1	.6	1.8	.0		11.1	
	22+	.6	.4	.6	.7	2.3	2.3	.6	1.6	.0		9.2	
	TOT %	4.1	3.5	2.6	2.1	5.4	4.3	1.5	5.3	.0	.1	29.1	
	0-3	1.2	.9	.1	.5	.5	.7	.5	2.1	.0	1.2	7.7	
10+	4-10	5.2	2.6	1.7	1.9	4.4	2.8	2.6	4.2	.0		25.6	
	11-21	3.8	2.4	1.5	1.1	3.9	4.6	2.3	4.0	.0		23.8	
	22+	.9	.6	.4	.2	2.6	1.9	1.0	1.2	.0		8.7	
	TOT %	11.1	6.6	3.7	3.7	11.4	10.0	6.7	11.4	.0	1.2	65.8	
	TOT OBS												950
	TOT PCT	15.3	10.7	6.5	6.5	18.2	15.5	8.4	17.2	.0	1.6	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.6	.0	2.3	9.7	16.0	5.1	2.9	.6	.0	.6	37.7	62.3	175
06&09	.7	.7	5.1	11.7	14.6	10.9	.0	.0	.7	.7	45.3	54.7	137
12&15	.9	.0	2.7	15.2	11.6	8.9	1.8	.9	.0	.9	42.9	57.1	112
18&21	1.3	.7	1.3	18.0	18.7	8.0	2.0	.0	.0	.0	50.0	50.0	150
TOT	5	2	16	77	89	46	10	2	1	3	251	323	574
PCT	.9	.3	2.8	13.4	15.5	8.0	1.7	.3	.2	.5	43.7	56.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.7	.7	1.7	28.3	68.6	293
06&09	.0	1.2	1.7	3.3	32.6	61.2	242
12&15	.9	.9	1.4	2.8	28.6	65.3	213
18&21	.4	.4	1.3	3.9	25.7	68.3	230
TOT	3	8	12	28	282	645	978
PCT	.3	.8	1.2	2.9	28.8	66.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <90YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.6	2.9	12.9	25.9	61.2	170
06&09	.7	6.7	20.1	26.9	53.0	134
12&15	.9	3.7	19.3	24.8	56.0	109
18&21	1.4	3.4	22.4	28.6	49.0	147
TOT	5	23	103	149	308	560
PCT	.9	4.1	18.4	26.6	55.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.1	.0	.1	.0	.1	.0	.0	3	.3
65/69	.0	.0	.0	.1	.1	.2	.2	.0	6	.7
60/64	.0	.0	.1	.5	1.5	2.5	1.7	1.4	67	7.6
55/59	.0	.0	.1	1.4	6.1	14.8	12.3	9.5	391	44.1
50/54	.0	.0	.0	1.4	7.0	7.1	13.5	8.9	336	37.9
45/49	.0	.0	.0	.0	1.0	3.0	3.2	1.7	79	8.9
40/44	.0	.0	.0	.0	.2	.1	.0	.1	4	.5
TOTAL	0	1	2	30	141	247	274	191	886	100.0
PCT	.0	.1	.2	3.4	15.9	27.9	30.9	21.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	*	.0	.0	.1	*	.1	.0	.0	.0
.2	.3	.1	.0	.0	.0	.1	*	.0	.0
2.3	1.0	.5	.3	.3	.1	1.3	1.6	.0	.2
8.5	7.1	2.8	2.1	3.7	4.1	3.7	11.5	.0	.6
3.6	2.1	2.2	3.4	10.6	8.5	2.8	4.2	.0	.6
.2	.1	.1	.5	4.0	2.8	.5	.4	.0	.3
.0	.0	.1	.1	.3	.0	.0	.0	.0	.0
14.9	10.7	5.8	6.3	19.0	15.5	8.5	17.6	.0	1.7

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	67	63	56	50	47	45	56.5	349
06&09	72	62	59	55	48	45	44	54.4	296
12&15	63	61	59	53	48	44	43	53.3	289
18&21	71	65	60	54	48	45	45	53.8	265
TOT	73	65	61	55	48	45	43	54.6	1199

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.9	22.3	32.7	22.7	15.4	77	260
06&09	.0	2.2	16.0	28.4	34.2	19.1	80	225
12&15	.0	2.9	10.0	26.3	34.9	25.8	82	209
18&21	.0	1.9	14.0	23.3	33.5	27.4	82	215
TOT	0	33	145	254	281	196	80	909

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	NO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
14/16	.0	.0	.0	.0	.2	.0	.0	.0	.0	1	.0	.2
11/13	.0	.0	.0	.5	.2	.2	.5	.2	.0	9	.0	1.4
9/10	.0	.0	.0	.2	.2	.5	.5	.0	.0	8	.0	1.2
7/8	.0	.0	.3	.2	.6	.9	.0	.0	.0	12	.0	1.8
6	.0	.0	.0	.3	.9	.3	.0	.0	.0	10	.0	1.5
5	.0	.0	.3	.8	2.2	1.1	.0	.0	.0	28	.0	4.3
4	.0	.2	.2	2.3	2.9	.9	.0	.0	.0	42	.2	6.3
3	.0	.0	.3	1.8	2.2	.5	.0	.0	.0	31	.3	4.5
2	.0	.3	.2	3.8	4.0	.8	.0	.0	.0	59	.6	8.5
1	.2	.0	1.4	4.5	3.7	.3	.0	.0	.0	65	.5	9.5
0	.2	.2	1.8	6.2	6.0	.6	.0	.0	.0	97	.5	14.5
-1	.0	.3	2.3	5.1	2.2	.0	.0	.0	.0	64	.2	9.7
-2	.0	.8	3.1	3.4	.6	.0	.0	.0	.0	51	.2	7.7
-3	.0	.8	2.6	2.5	.6	.0	.0	.0	.0	42	.2	6.3
-4	.0	.9	2.8	2.9	.8	.0	.0	.0	.0	48	.0	7.4
-5	.2	.8	1.8	1.4	.6	.0	.0	.0	.0	31	.0	4.8
-6	.0	.6	1.8	.6	.2	.0	.0	.0	.0	21	.0	3.2
-7/-8	.0	.8	1.7	.8	.0	.0	.0	.0	.0	21	.0	3.2
-9/-10	.2	.5	.8	.0	.0	.0	.0	.0	.0	9	.0	1.4
TOTAL	4	39	139	241	181	38	6	1	1	650	16	634
PCT	.6	6.0	21.4	37.1	27.8	5.8	.9	.2	.2	100.0	2.5	97.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	3.3	1.6	.0	.0	.0	4.9
3-4	.0	1.5	2.6	.2	.0	.0	4.3
5-6	.0	.5	.9	.4	.0	.0	1.5
7	.0	.0	.2	.0	.2	.0	.4
8-9	.0	.0	.2	.2	.0	.0	.4
10-11	.0	.0	.2	.2	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.7	5.3	1.0	.2	.0	12.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.9	.0	.0	.0	.0	1.6
1-2	.0	1.7	.9	.0	.0	.0	2.7
3-4	.0	.0	2.1	.2	.0	.0	2.3
5-6	.0	.8	1.6	.4	.0	.0	2.8
7	.0	.0	.7	.5	.0	.0	1.2
8-9	.0	.0	.3	.4	.0	.0	.7
10-11	.0	.0	.5	.2	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.1	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	3.4	6.1	1.8	.0	.0	12.0

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.7
1-2	.0	1.6	.0	.0	.0	.0	1.6
3-4	.0	.4	1.9	.0	.0	.0	2.3
5-6	.0	.4	1.4	.2	.0	.0	2.0
7	.0	.0	.4	.4	.0	.0	.8
8-9	.0	.0	.0	.0	.4	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.5	.0	.0	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.8	3.6	.8	.4	.0	7.9

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1
1-2	.2	2.4	.4	.0	.0	.0	3.0
3-4	.0	.7	.6	.3	.0	.0	1.6
5-6	.0	.2	.4	.0	.0	.0	.7
7	.0	.0	.2	.0	.4	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.4	1.7	.5	.4	.0	7.3

PERIOD: (OVER-ALL) 1963-1977

SEPTEMBER

AREA 0029 HAWKE BAY
40.3S 177.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.5	.0	.0	.0	.0	1.7
1-2	.0	2.6	2.2	.0	.0	.0	4.8
3-4	.0	.7	3.4	.3	.0	.0	4.4
5-6	.0	.3	2.0	.8	.2	.0	3.4
7	.0	.0	.5	.8	.8	.0	2.1
8-9	.0	.0	.2	.2	1.0	.2	1.6
10-11	.0	.0	.0	.2	.2	.0	.4
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.2	.0	.4
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	5.0	8.4	2.7	2.7	.2	19.2

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5
1-2	.2	1.5	2.4	.0	.0	.0	4.1
3-4	.0	.9	3.0	.9	.0	.0	4.9
5-6	.0	.1	1.5	.5	.2	.0	2.3
7	.0	.0	.8	.8	.5	.0	2.0
8-9	.0	.0	.7	.5	.3	.0	1.5
10-11	.0	.0	.2	.2	.9	.0	1.3
12	.0	.0	.0	.1	.2	.0	.3
13-16	.0	.0	.0	.2	.7	.0	.9
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.0	9.6	3.2	2.8	.0	17.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.5	.2	.0	.0	.0	1.0
1-2	.4	1.4	1.0	.0	.0	.0	2.8
3-4	.0	1.2	2.1	.4	.0	.0	3.7
5-6	.0	.0	.2	.3	.0	.0	.5
7	.0	.0	.4	.6	.0	.0	1.0
8-9	.0	.0	.4	.0	.2	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.1	4.3	1.4	.2	.0	9.6

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.7	.0	.0	.0	.0	.9	
1-2	.1	3.3	1.1	.0	.0	.0	4.5	
3-4	.0	.7	2.1	.5	.0	.0	3.3	
5-6	.0	.3	1.3	.5	.0	.0	2.1	
7	.0	.0	.9	.3	.0	.0	1.1	
8-9	.0	.0	.2	.0	.2	.0	.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.4	.4	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	4.9	5.6	1.2	.2	.4	12.7	98.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.0	6.1	.2	.0	.0	.0	9.3	
1-2	.9	17.7	9.7	.0	.0	.0	28.4	
3-4	.0	6.1	17.7	2.8	.0	.0	26.6	
5-6	.0	2.6	8.9	3.2	.4	.0	15.2	
7	.0	.0	4.1	3.2	1.9	.0	9.3	
8-9	.0	.0	1.9	1.3	2.2	.2	5.6	
10-11	.0	.0	.9	.9	1.1	.0	2.8	
12	.0	.0	.0	.2	.2	.0	.4	
13-16	.0	.0	.0	.6	.9	.4	1.9	
17-19	.0	.0	.0	.0	.2	.0	.2	
20-22	.0	.0	.0	.2	.0	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.9	32.5	43.5	12.6	6.9	.6	100.0	462

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	4.7	7.4	6.2	4.5	2.3	1.6	.2	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	144	5
6-7	.0	.8	3.7	5.4	7.6	4.5	4.1	1.6	3.1	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	163	8
8-9	.0	.0	2.3	4.9	3.5	2.3	1.6	1.0	3.5	.2	.0	.2	.2	.0	.0	.0	.0	.0	.0	101	8
10-11	.0	.2	.8	1.2	.8	2.3	.8	.2	.6	.8	.2	.2	.4	.2	.0	.0	.0	.0	.0	44	10
12-13	.0	.0	1.6	.6	.4	.4	1.0	.6	.4	.8	.0	.0	.0	.4	.0	.0	.0	.0	.0	31	10
>13	.0	.0	.0	.4	.0	.2	.6	.2	.4	.4	.6	.2	.0	.0	.0	.0	.0	.0	.0	15	14
INDET	1.0	.2	.8	.4	.4	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	4
TOTAL	7	30	85	98	88	64	50	19	65	15	5	3	3	3	0	0	0	0	0	513	7
PCT	1.4	5.8	16.5	19.0	17.1	12.4	9.7	3.7	8.7	2.9	1.0	.6	.6	.6	.0	.0	.0	.0	.0	100.0	

OCTOBER

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1868-1977

AREA 0029 HAWKE BAY
40.4S 176.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	4.0	.2	1.5	.0	.0	.0	.0	5.8	1.7	.2	3.3	.0	.9	.4		87.8
NE	5.8	.6	2.6	.0	.0	.0	.0	9.0	1.4	.3	2.9	.0	1.4	.0		85.0
E	4.6	.0	1.7	.0	.0	.0	.0	6.3	4.0	.0	.0	.0	.0	.0		89.7
SE	6.0	3.5	3.2	.0	.0	.0	.0	12.8	2.1	.0	1.4	.0	1.4	.0		82.3
S	11.5	5.8	2.2	.0	.0	.0	.0	19.5	5.0	1.2	.6	.0	.6	.8		72.8
SW	5.0	1.7	3.2	.0	.0	.0	.0	9.9	3.4	.4	2.1	.0	.2	.0		84.4
W	4.1	1.6	.8	.0	.0	.0	.0	6.5	1.9	.0	.5	.0	.0	.0		91.1
NW	1.4	.6	1.9	.0	.0	.0	.0	4.0	.3	.6	2.9	.0	.0	.2		92.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	6.3	.0	.0	.0	.0	.0	.0	6.3	.0	.0	.0	.0	6.3	.0		87.5
TOT PCT	5.2	1.6	2.1	.0	.0	.0	.0	8.9	2.2	.4	2.1	.0	.7	.2		85.7
TOT OBS:	1005															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.9	2.6	2.0	.0	.0	.0	.0	10.6	1.7	.0	1.3	.0	.3	.0		86.1
06&09	5.4	1.4	1.4	.0	.0	.0	.0	8.2	2.9	.7	1.1	.0	2.1	.4		84.6
12&15	3.5	1.5	1.5	.0	.0	.0	.0	6.5	2.0	1.0	4.5	.0	.5	.5		85.4
18&21	5.4	.4	3.5	.0	.0	.0	.0	9.2	2.3	.0	2.3	.0	.0	.0		86.2
TOT PCT	5.2	1.5	2.1	.0	.0	.0	.0	8.8	2.2	.4	2.1	.0	.8	.2		85.6
TOT OBS:	1042															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	2.8	8.8	7.3	1.4	.3	.0		20.6	11.2	19.8	23.5	13.4	22.2	23.0	17.4	20.5	25.2
NE	1.6	7.2	6.7	1.3	*	.0		16.7	11.2	18.2	18.7	23.3	11.2	18.2	18.5	13.4	12.4
E	.5	2.9	1.2	.2	.1	.0		4.9	9.7	6.0	5.2	9.1	4.6	1.7	3.6	5.3	3.1
SE	1.3	3.9	1.5	.1	*	.0		6.9	8.0	7.7	12.7	8.8	11.5	4.5	1.1	3.7	4.5
S	1.6	4.7	4.5	1.1	.2	.0		12.1	12.0	13.2	14.9	13.4	15.7	10.9	7.6	9.5	9.5
SW	.9	4.7	4.9	1.7	.6	.1		12.8	14.5	12.4	5.6	12.4	11.8	11.8	14.5	19.3	11.9
W	.5	3.6	2.8	1.5	.6	.0		9.1	14.5	8.2	6.0	7.2	3.8	10.9	14.1	12.3	12.6
NW	2.0	5.8	5.1	2.0	.4	.0		15.3	12.6	13.9	11.9	8.6	17.3	17.6	20.3	15.5	18.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.7							1.7	.0	.7	1.5	3.8	1.8	1.5	2.9	.6	2.2
TOT OBS	163	524	430	118	27	1	1263		11.7	294	67	159	169	205	69	161	139
TOT PCT	12.9	41.5	34.0	9.3	2.1	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	6.0	9.8	4.0	.8	.0		20.6	11.2	20.5	17.9	21.6	22.7
NE	5.2	8.0	3.2	.3	.0		16.7	11.2	18.3	17.1	18.2	12.9
E	1.8	2.4	.6	.1	.0		4.9	9.7	5.8	6.8	2.2	4.3
SE	3.7	2.5	.6	.1	.0		6.9	8.0	8.6	10.2	3.6	4.1
S	3.2	5.5	2.8	.5	.0		12.1	12.0	13.5	14.6	10.0	9.5
SW	2.3	6.3	2.7	1.5	.1		12.8	14.5	11.1	12.1	12.5	15.8
W	2.2	4.1	1.8	.8	.2		9.1	14.5	7.8	5.5	11.7	12.4
NW	4.7	6.1	3.6	.9	.2		15.3	12.6	13.6	13.1	18.2	17.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.7						1.7	.0	.8	2.7	1.8	1.3
TOT OBS	389	563	242	62	7	1263		11.7	361	328	274	300
TOT PCT	30.8	44.6	19.2	4.9	.6		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	.8	13.6	41.8	32.4	9.1	2.2	.0	11.6	100.0	361
06&09	2.7	14.0	39.0	32.6	9.8	1.5	.3	11.1	100.0	328
12&15	1.8	2.6	44.9	38.7	9.5	2.6	.0	12.8	100.0	274
18&21	1.3	13.3	40.7	33.3	9.0	2.3	.0	11.6	100.0	300
TOT	21	142	524	430	118	27	1	11.7		1263
PCT	1.7	11.2	41.5	34.0	9.3	2.1	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.7	2.7	6.2	3.3		4.4
NE	6.3	3.5	5.6	4.6		4.5
E	.9	.6	1.6	1.7		5.7
SE	1.7	.8	1.2	2.4		5.1
S	2.4	1.0	5.0	3.7		5.5
SW	3.0	2.7	4.1	3.8		5.0
W	4.5	1.4	3.5	.4		3.4
NW	5.6	3.8	2.6	1.6		3.5
VAR	.0	.0	.0	.0		.0
CALM	.9	.2	.9	.3		4.3
TOT OBS	181	97	179	127	584	4.5
TOT PCT	31.0	16.6	30.7	21.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY WGT	TOTAL OBS
N	.2	.2	.0	1.0	2.3	1.5	.6	.0	.2	.3	11.6	
NE	.0	.0	.7	1.0	2.4	1.9	.3	.0	.0	.2	13.4	
E	.0	.0	.3	.7	1.4	.3	.2	.0	.0	.0	2.0	
SE	.0	.0	*	.6	1.5	.6	.0	.0	.0	.0	3.3	
S	.3	.0	.6	1.3	1.7	1.7	.9	.0	.0	.0	5.5	
SW	.2	.0	.1	1.5	3.1	.4	.4	.2	.0	.0	7.7	
W	.0	.0	.0	.6	.8	.9	.0	.0	.2	.2	7.3	
NW	.0	.0	.0	.6	1.3	.7	*	.0	.0	.0	11.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.2	.0	.0	.2	.0	.2	.0	.0	.0	.0	1.7	
TOT OBS	5	1	10	43	85	48	14	1	2	4	371	584
TOT PCT	.9	.2	1.7	7.4	14.6	8.2	2.4	.2	.3	.7	63.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
* OR >4000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
* OR >3500	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
* OR >2000	9.9	11.4	11.6	11.6	11.6	11.6	11.6	11.6
* OR >1000	21.3	25.8	26.8	26.8	26.8	26.8	26.8	26.8
* OR >600	25.5	32.1	33.9	34.2	34.2	34.2	34.2	34.2
* OR >300	25.6	33.6	35.4	36.0	36.0	36.0	36.0	36.0
* OR >150	25.6	33.6	35.5	36.2	36.2	36.2	36.2	36.2
* OR > 0	25.6	33.7	35.9	36.9	36.9	36.9	37.0	37.0
TOTAL	155	204	217	223	223	223	224	224

TOTAL NUMBER OF OBS: 605

PCT FREQ NH <5/8: 63.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
14.0	21.1	11.6	8.4	7.9	5.3	6.6	8.4	16.4 .5	622

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	.0	.0	.0	.0	.0	.1	*	.0	.0	.3	
	TOT %	.1	.0	.0	.0	.0	.0	.1	*	.0	.0	.3	
1<2	PCP	.0	.2	.0	.0	.4	.1	.0	.0	.0	.0	.7	
	NO PCP	.2	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3	
	TOT %	.2	.2	.0	.0	.4	.1	.0	.1	.0	.0	1.0	
2<5	PCP	.4	.3	.0	.0	.2	.3	.1	.1	.0	.0	1.4	
	NO PCP	.2	.1	.1	*	.3	.5	.1	*	.0	.0	1.5	
	TOT %	.4	.4	.1	*	.5	.8	.2	.2	.0	.0	2.9	
5<10	PCP	.6	.6	.2	.4	.7	.4	.2	.4	.0	.0	3.6	
	NO PCP	3.8	2.7	.7	.8	1.8	3.2	1.5	3.0	.0	.1	17.6	
	TOT %	4.4	3.3	.9	1.2	2.5	3.6	1.7	3.4	.0	.1	21.2	
10+	PCP	.2	.4	.1	.4	1.2	.4	.2	.1	.0	.0	3.1	
	NO PCP	14.4	12.0	3.3	5.2	7.9	8.1	6.9	11.8	.0	1.4	71.3	
	TOT %	14.8	12.4	3.4	5.7	9.1	8.5	7.1	11.9	.0	1.4	74.4	
	TOT OBS												1004
	TOT PCT	20.3	16.3	4.4	6.9	12.5	13.1	9.2	15.7	.0	1.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.1	.0	.0	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.1	.0	.0	.0	.0	.0	.1	*	.0		.3	
	TOT %	.1	.0	.0	.0	.0	.0	.1	*	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	4-10	.2	.1	.0	.0	.1	.1	.0	.0	.0		.5	
	11-21	.0	.1	.0	.0	.2	*	.0	.0	.0		.3	
	22+	.0	.2	.0	.0	.1	.0	.0	.1	.0		.4	
	TOT %	.2	.4	.0	.0	.4	.2	.0	.1	.0	.0	1.4	
2<5	0-3	.0	.1	.0	*	.2	.0	.0	.0	.0	.0	.3	
	4-10	.5	.0	.1	.0	.0	.2	.2	.1	.0		1.1	
	11-21	.1	.2	.0	*	.1	.2	.1	.0	.0		.8	
	22+	*	.1	.0	.0	.2	.3	.0	*	.0		.7	
	TOT %	.6	.4	.1	*	.5	.8	.2	.2	.0	.0	2.8	
5<10	0-3	.7	.2	.0	.1	.3	.1	.1	.3	.0	.1	1.9	
	4-10	1.8	1.4	.6	.6	.7	1.3	.4	.8	.0		7.5	
	11-21	1.4	1.3	.2	.4	1.1	1.1	.3	1.4	.0		7.2	
	22+	.5	.4	.0	.1	.4	1.1	.9	.8	.0		4.2	
	TOT %	4.4	3.2	.9	1.2	2.5	3.6	1.7	3.4	.0	.1	20.9	
10+	0-3	2.6	1.6	.6	1.2	1.3	.9	.6	2.1	.0	1.4	12.4	
	4-10	5.4	4.8	1.6	3.0	4.0	3.2	3.1	4.6	.0		29.9	
	11-21	5.8	5.1	.8	1.3	3.1	3.4	2.4	3.9	.0		25.9	
	22+	.9	.8	.3	.1	.8	.9	1.1	1.3	.0		6.3	
	TOT %	14.8	12.4	3.3	5.7	9.3	8.4	7.2	12.0	.0	1.4	74.4	
	TOT OBS												1021
	TOT PCT	20.2	16.4	4.3	6.9	12.7	13.0	9.2	15.7	.0	1.6	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.2	.0	2.4	5.9	14.7	7.1	2.4	.0	.0	.0	33.5	66.5	170
06&09	1.3	.0	2.5	6.9	13.2	8.8	1.9	.0	.0	.6	35.2	64.8	159
12&15	.0	.0	.8	8.3	16.5	9.1	1.7	.0	.0	1.7	38.0	62.0	121
18&21	.6	.6	1.2	8.5	15.8	7.3	3.0	.6	1.2	.6	39.4	60.6	165
TOT	5	1	11	45	92	49	14	1	2	4	224	391	615
PCT	.8	.2	1.8	7.3	15.0	8.0	2.3	.2	.3	.7	36.4	63.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.3	1.9	2.3	19.7	75.7	309
06&09	.4	.4	2.1	5.3	25.7	66.2	284
12&15	.0	.5	.0	1.0	27.7	70.8	202
18&21	.4	.0	.8	1.9	14.8	82.1	268
TOT	2	3	14	29	229	781	1058
PCT	.2	.3	1.3	2.7	21.6	73.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.2	3.6	11.4	22.8	65.9	167
06&09	1.3	3.8	12.2	24.4	63.5	156
12&15	.0	.8	9.2	29.4	61.3	119
18&21	.6	2.5	12.9	27.6	59.5	163
TOT	5	17	70	156	379	605
PCT	.8	2.8	11.6	25.8	62.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.1	.3	.3	.2	.0	.0	9	.9
65/69	.0	.2	.0	.8	.6	.8	.5	.0	29	2.8
60/64	.0	.0	.1	1.3	3.5	8.2	5.8	3.8	239	22.9
55/59	.0	.0	.3	1.3	5.7	12.6	16.8	10.6	494	47.3
50/54	.0	.0	.2	1.3	3.1	5.0	8.8	3.7	231	22.1
45/49	.0	.0	.0	.1	.9	1.5	.9	.6	41	3.9
40/44	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
TOTAL	0	2	7	54	146	297	342	196	1044	100.0
PCT	.0	.2	.7	5.2	14.0	28.4	32.8	18.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.3	.1	.0	.0	.0	.1	.3	.1	.0	.0
.5	.5	.2	.4	*	*	.3	.4	.0	.4
6.6	4.9	1.0	.8	1.1	1.3	1.8	5.1	.0	.2
11.3	9.4	3.0	3.3	3.9	4.5	4.0	6.9	.0	.8
2.3	2.4	.8	1.8	5.4	6.0	2.4	.9	.0	.1
.0	.1	.0	.5	1.4	1.4	.4	.1	.0	.1
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
21.0	17.4	5.1	6.8	12.0	13.3	9.2	13.6	.0	1.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	75	72	66	59	51	47	47	58.7	369
06&09	73	68	63	57	49	47	46	56.6	335
12&15	66	63	62	56	50	46	44	55.9	278
18&21	71	65	63	57	50	46	45	56.4	309
TOT	75	68	64	57	50	47	44	57.0	1291

TABLE 16

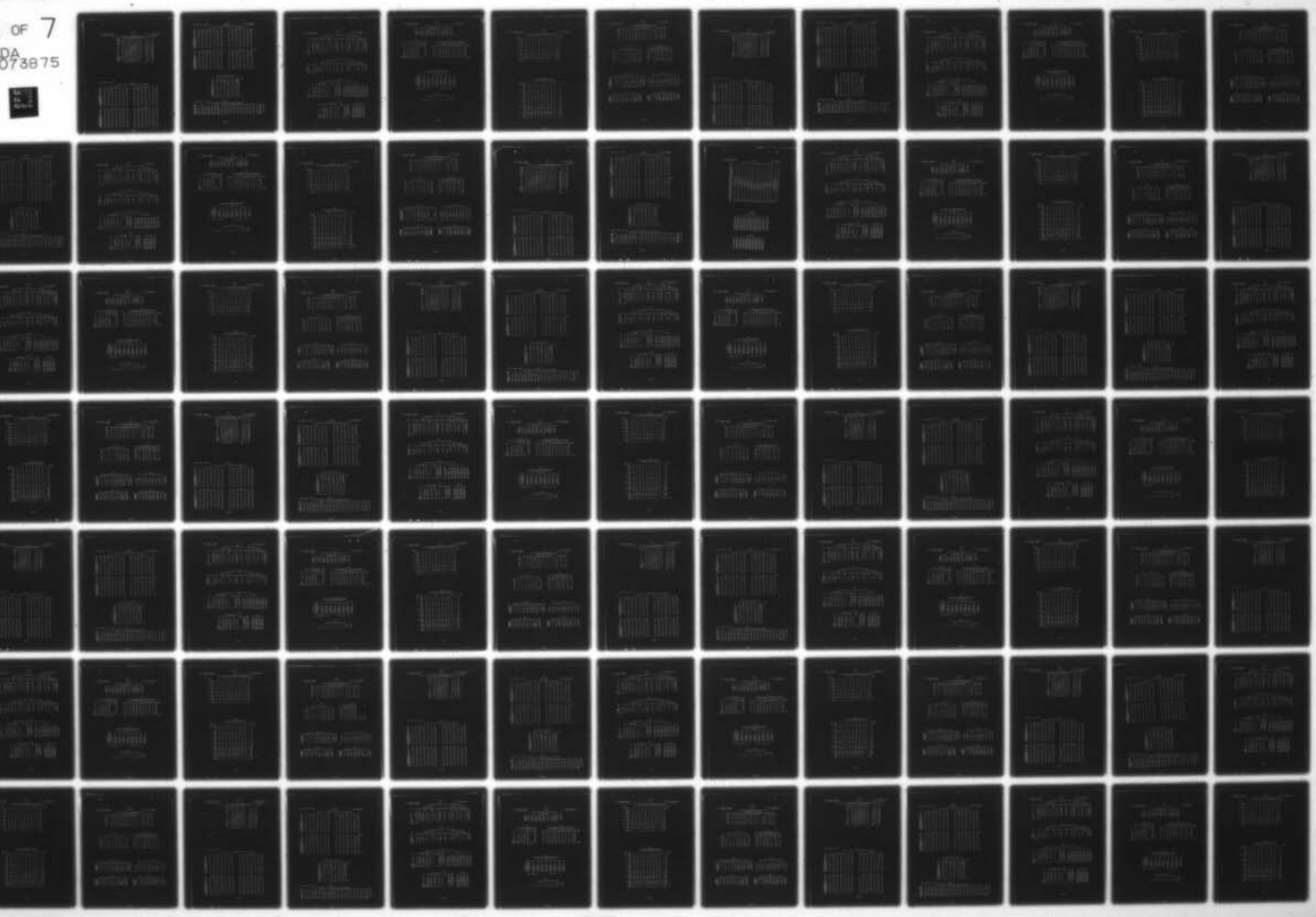
PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

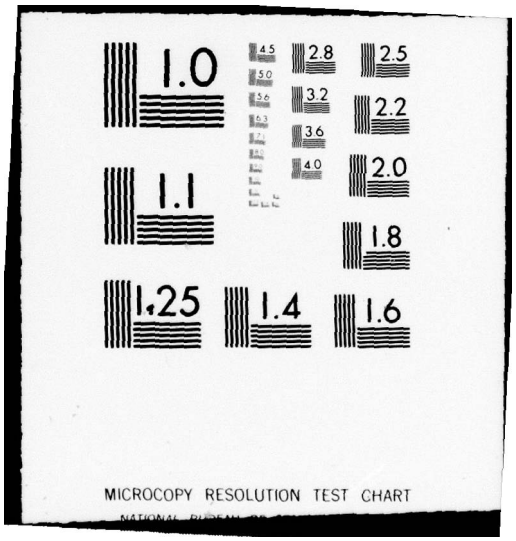
HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	9.4	20.7	30.1	25.6	14.2	77	309
06&09	.0	5.9	9.8	28.0	35.3	21.0	80	286
12&15	.0	2.4	11.4	26.7	37.1	22.4	82	210
18&21	.0	4.4	12.4	28.1	37.2	17.9	80	274
TOT	0	63	150	306	360	200	80	1079

AD-A073 875 NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO), SELECTE--ETC(U)
SEP 79

UNCLASSIFIED NL

5 OF 7
ADA 073875




1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
6.3
7.1
MICROCOPY RESOLUTION TEST CHART

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.6	.5	.0	.0	7	.0	1.1
11/13	.0	.0	.0	.0	.8	.6	.3	.2	12	.2	1.7
9/10	.0	.0	.0	.0	.2	.6	.3	.0	7	.0	1.1
7/8	.0	.0	.0	.3	1.1	1.7	1.2	.0	28	.0	4.2
6	.0	.0	.0	.0	.5	1.1	.3	.0	12	.0	1.8
5	.0	.0	.0	.0	1.8	2.6	.2	.0	30	.2	4.4
4	.0	.0	.0	.3	3.9	3.3	.0	.0	50	.2	7.4
3	.0	.0	.0	.5	3.3	2.6	.0	.0	42	.2	6.2
2	.0	.0	.2	2.3	4.2	2.6	.0	.0	61	.2	9.1
1	.0	.0	.0	2.9	6.3	1.2	.0	.0	70	.2	10.5
0	.0	.0	.8	5.9	6.4	2.0	.0	.0	99	.5	14.5
-1	.0	.0	1.2	4.4	2.6	.3	.0	.0	56	.6	7.9
-2	.0	.0	2.0	5.0	1.8	.2	.0	.0	59	.3	8.6
-3	.0	.0	2.6	1.8	.8	.0	.0	.0	34	.2	5.0
-4	.0	.5	1.2	1.5	.9	.0	.0	.0	27	.2	3.9
-5	.0	.0	1.8	1.5	.8	.2	.0	.0	28	.0	4.2
-6	.0	.6	.6	.5	.0	.2	.0	.0	12	.0	1.8
-7/-8	.0	.9	.9	.8	.0	.0	.0	.0	17	.0	2.6
-9/-10	.2	.3	.5	.3	.0	.0	.0	.0	8	.0	1.2
-11/-13	.0	.2	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	1	16	77	184	238	128	15	1	660	17	643
PCT	.2	2.4	11.7	27.9	36.1	19.4	2.3	.2	100.0	2.6	97.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	1.0	.0	.0	.0	.0	1.8
1-2	.2	4.1	1.1	.0	.0	.0	5.4
3-4	.0	.7	3.3	.0	.0	.0	3.9
5-6	.1	.2	1.8	.5	.0	.0	2.6
7	.0	.0	1.9	.1	.0	.0	1.5
8-9	.0	.0	.0	.1	.1	.0	.3
10-11	.0	.0	.0	.1	.2	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	6.0	7.4	.9	.3	.0	15.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	1.2	.0	.0	.0	.0	2.0
1-2	.0	3.5	2.1	.0	.0	.0	5.6
3-4	.0	1.3	2.6	1.0	.0	.0	4.8
5-6	*	.0	2.2	.5	.0	.0	2.8
7	.0	.0	1.8	.4	.0	.0	2.2
8-9	.0	.0	.0	.2	*	.0	.2
10-11	.0	.0	.2	.2	.0	.0	.4
12	.0	.2	.0	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	6.1	8.9	2.3	*	.0	18.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.2	.0	.0	.0	.0	1.6
1-2	.0	.9	.0	.0	.0	.0	.9
3-4	.0	.3	1.1	.0	.0	.0	1.4
5-6	.0	.1	.0	.2	.0	.0	.3
7	.0	.2	.0	.1	.0	.0	.3
8-9	.0	.0	.0	.0	.2	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.8	1.1	.3	.2	.0	4.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.0	.0	.0	.0	.0	1.2
1-2	.0	1.5	.2	.0	.0	.0	1.8
3-4	.0	.5	1.6	.0	.0	.0	2.1
5-6	.2	.3	.0	.0	.0	.0	.5
7	.0	.4	.4	*	.0	.0	.8
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.7	2.4	*	.0	.0	6.6

PERIOD: (OVER-ALL) 1963-1977 OCTOBER AREA 0029 HAWKE BAY 40.4S 176.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.3	.0	.0	.0	.0	.7	*	.2	.0	.0	.0	.0	.3
1-2	.2	2.2	1.3	.0	.0	.0	3.6	.0	2.9	1.3	.0	.0	.0	4.2
3-4	.2	1.9	1.9	.3	.0	.0	4.3	.0	1.4	2.8	.1	.0	.0	4.3
5-6	.0	.3	2.4	.1	.0	.0	2.8	.0	.2	1.5	.7	.0	.0	2.4
7	.0	.0	.2	.4	.0	.0	.6	.0	.0	.6	.6	.0	.0	1.3
8-9	.0	.0	.3	.1	.0	.0	.5	.0	.0	.4	.2	.2	.0	.9
10-11	.0	.0	.1	.0	.1	.0	.3	.0	.0	.2	*	.2	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	*	.6	.0	.6
17-19	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	*	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.8	6.2	1.3	.1	.0	13.2	*	4.7	6.9	1.8	1.0	.2	14.7

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.3	.3	.0	.0	.0	.0	.6	*	.4	.2	.0	.0	.0	.6	
1-2	.0	3.0	1.2	.0	.0	.0	4.1	.4	4.2	1.4	.0	.0	.0	6.0	
3-4	.0	1.2	1.3	.1	.0	.0	2.7	.0	.3	1.8	.2	.0	.0	2.3	
5-6	.0	.3	1.1	.7	.0	.0	2.1	.0	.2	1.6	.2	.0	.0	2.0	
7	.0	.0	.3	.3	.0	.0	.7	.0	.0	1.0	*	.0	.0	1.0	
8-9	.0	.0	.0	.0	.2	.0	.2	.0	.0	.2	.2	.0	.0	.4	
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.6	.2	.0	.8	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.2	.2	.0	.0	.4	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	4.8	3.9	1.5	.2	.0	10.7	.4	5.2	6.3	1.6	.2	.0	13.7	97.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.2	5.7	.2	.0	.0	.0	11.1	
1-2	1.0	22.9	8.4	.0	.0	.0	32.3	
3-4	.4	7.4	16.0	1.7	.0	.0	25.6	
5-6	.6	1.7	10.3	2.9	.0	.0	15.5	
7	.0	.6	5.5	2.1	.0	.0	8.2	
8-9	.0	.0	1.1	1.0	.8	.0	2.9	
10-11	.0	.0	.6	1.1	.8	.0	2.5	
12	.0	.2	.0	.0	.0	.0	.2	
13-16	.0	.0	.2	.6	.6	.0	1.3	
17-19	.0	.2	.0	.2	.0	.0	.4	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.2	.2	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.1	38.7	42.4	9.5	2.1	.2	100.0	524

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.4	5.6	9.7	7.3	4.8	3.6	2.0	.2	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	209	5
6-7	.2	.5	3.6	6.8	5.1	2.6	2.4	.2	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	131	6
8-9	.0	.5	2.2	3.1	4.3	1.4	3.4	.5	1.2	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	101	8
10-11	.0	1.2	1.7	1.0	1.7	1.0	2.0	.7	.2	.5	.0	.0	.0	.0	.0	.2	.0	.0	.0	65	8
12-13	.0	.0	1.4	.9	.5	.7	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	6
>13	.0	.0	.0	1.5	.5	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	6
INDET	1.4	1.0	1.7	1.2	1.4	.3	.5	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	48	5
TOTAL	17	52	119	128	107	57	64	12	21	9	0	0	0	0	0	1	0	0	0	587	6
PCT	2.9	8.9	20.3	21.8	18.2	9.7	10.9	2.0	3.6	1.5	.0	.0	.0	.0	.0	.2	.0	.0	.0	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1867-1977

AREA 0029 HAWKE BAY
40.3S 177.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	4.7	2.0	2.6	.0	.0	.0	.0	9.4	1.7	.5	2.0	.0	3.6	.4		81.9
NE	2.3	1.6	2.3	.0	.0	.0	.0	6.2	3.5	.0	1.9	.0	7.8	.0		80.6
E	5.0	5.0	.0	.0	.0	.0	.0	9.9	6.4	.0	4.1	.0	4.5	.0		74.8
SE	4.4	0.0	1.5	.0	.0	.0	.0	14.7	2.9	.0	5.9	.0	.4	.0		76.2
S	5.4	4.8	4.4	.0	.0	.0	.0	14.6	1.9	.0	7.1	.0	2.3	.0		74.5
SW	4.3	3.2	3.4	.0	.0	.0	.0	12.8	6.5	.0	4.5	.0	.0	.0		76.1
W	2.6	.0	.0	.0	.0	.0	.0	3.2	1.9	.0	2.4	.0	.9	1.2		90.6
NW	2.1	2.1	2.0	.0	.0	.0	.0	6.3	1.4	.0	3.6	.0	1.3	.8		86.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	3.7	.0	3.7	.0	.0	.0	.0	7.4	3.7	3.7	7.4	.0	11.1	.0		56.7
TOT PCT	3.8	3.1	2.3	.0	.0	.0	.0	9.2	2.9	.2	3.9	.0	3.1	.3		80.3
TOT OBS:	986															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.4	1.9	2.7	.0	.0	.0	.0	8.0	2.7	.0	4.2	.0	5.3	.8		79.0
06&09	4.3	3.5	1.2	.0	.0	.0	.0	8.9	1.9	.4	1.6	.0	3.9	.0		83.3
12&15	3.7	4.1	2.5	.0	.0	.0	.0	10.3	5.3	.4	6.2	.0	.8	.0		77.0
18&21	3.3	2.0	2.8	.0	.0	.0	.0	8.9	1.4	.0	4.1	.0	3.3	.4		91.7
TOT PCT	3.7	3.1	2.3	.0	.0	.0	.0	9.0	2.9	.2	4.0	.0	3.4	.3		80.3
TOT OBS:	1008															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)						
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.7	9.9	9.3	2.1	.4	.1		22.2	12.6	20.4	22.9	15.7	25.5	22.7	21.1	24.7	25.6
NE	1.1	6.4	7.7	.6	.0	.0		15.5	11.5	18.2	19.2	20.7	14.9	13.4	14.8	11.9	13.9
E	.4	3.4	1.8	.4	.0	.0		5.9	10.4	4.0	8.4	12.4	7.7	5.0	5.5	5.1	.9
SE	.7	3.3	2.5	.5	.1	.0		7.1	11.1	7.0	4.5	4.7	9.3	9.1	9.9	4.2	7.2
S	.4	4.5	5.7	1.4	.0	.1		12.4	13.5	11.3	15.4	14.7	15.8	10.1	9.6	11.0	13.3
SW	.9	2.5	3.4	2.0	1.3	.1		10.2	16.2	11.8	8.7	12.7	10.1	7.5	6.0	14.4	8.0
W	.4	2.0	3.3	1.3	.3	.0		6.2	15.0	8.5	5.1	5.8	2.8	9.5	12.5	10.5	10.4
NW	.7	5.3	5.9	3.2	.5	.2		15.9	15.7	15.0	12.7	12.7	11.3	20.0	19.5	15.9	18.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
CALM	2.3							2.3	.0	2.7	2.4	.7	2.6	2.6	1.0	2.5	3.0
TOT OBS	139	470	501	147	33	5	1265		13.3	259	83	150	153	227	96	162	135
TOT PCT	5.6	37.2	39.6	11.6	2.6	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.7	11.7	4.9	.6	.3		22.2	12.0	21.1	20.6	22.2	25.1
NE	4.1	7.8	3.8	.1	.0		15.8	11.5	16.6	17.7	13.9	12.8
E	1.7	3.2	1.0	.0	.0		5.9	10.4	5.8	10.1	5.1	2.8
SE	2.5	3.2	1.1	.3	.0		7.1	11.1	6.4	7.0	9.4	5.6
S	2.6	4.9	4.5	.4	.0		12.4	13.5	12.3	15.3	10.0	12.0
SW	1.5	3.3	3.3	1.8	.3		10.2	16.2	11.0	11.4	7.0	11.4
W	1.2	3.8	2.3	.8	.1		8.2	15.0	7.7	4.3	10.4	10.4
NW	2.6	7.2	4.9	1.7	.4		15.9	15.7	14.4	12.0	19.9	17.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.3						2.3	.0	2.6	1.7	2.2	2.7
TOT OBS	292	571	415	73	14	1265		13.3	342	303	323	297
TOT PCT	23.1	45.1	24.9	5.8	1.1		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00-03	2.6	6.7	35.7	37.7	12.9	4.1	.3	13.9	100.0	342
06-09	1.7	4.6	36.6	38.6	11.6	3.3	.7	13.6	100.0	303
12-15	2.2	3.1	38.9	39.6	13.3	1.2	.6	13.5	100.0	323
18-21	2.7	11.1	33.3	42.8	8.4	1.7	.0	12.0	100.0	297
TOT	29	80	470	501	147	33	5	13.3		1265
PCT	2.3	6.3	37.2	39.6	11.6	2.6	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	4.4	3.6	6.5	4.0		4.3
NE	5.7	1.8	6.4	3.4		4.6
E	3.0	.8	2.1	2.5		4.9
SE	.7	.2	1.9	3.9		6.6
S	2.0	1.0	4.0	4.0		5.6
SW	1.6	1.8	5.6	3.4		5.5
W	4.0	1.9	2.5	1.1		3.6
NW	5.0	1.8	4.8	1.1		4.2
VAR	.0	.0	.0	.0		.4
CALM	1.1	.8	.8	.4		3.7
TOT OBS	147	73	183	128	531	4.8
TOT PCT	27.7	13.7	34.5	24.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.5	.7	2.2	1.4	.8	.4	.3	.3	11.6	
NE	.0	.2	.6	1.7	1.7	1.6	*	.2	.0	.2	11.6	
E	.2	.0	.4	.6	1.4	.6	.0	.0	.0	.0	5.3	
SE	.0	.2	.2	1.8	1.7	.5	.0	.0	.0	.0	2.1	
S	.2	.2	.2	2.0	2.1	1.3	.3	.0	.0	.0	4.7	
SW	.2	.0	.2	2.4	2.3	.6	.6	.2	.0	.2	4.2	
W	.0	.0	.1	.5	.5	.1	.5	.2	.0	.0	7.5	
NW	.0	.0	.0	.2	1.4	1.0	.2	.2	.2	.0	9.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.2	.0	.0	.2	.0	.0	.0	.0	.2	.0	2.6	
TOT OBS	4	3	12	51	70	39	13	7	4	4	324	531
TOT PCT	.8	.6	2.3	9.6	13.2	7.3	2.4	1.3	.8	.8	61.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >500YD	* OR >0
* OR >6500	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5
* OR >5000	2.6	2.8	2.8	2.8	2.8	2.8	2.8	2.8
* OR >3500	4.5	5.2	5.2	5.2	5.2	5.2	5.2	5.2
* OR >2000	10.4	12.4	12.6	12.6	12.6	12.6	12.6	12.6
* OR >1000	20.8	24.7	25.8	26.0	26.0	26.0	26.0	26.0
* OR >600	25.8	32.7	35.1	35.3	35.4	35.4	35.4	35.4
* OR >300	26.0	34.0	37.1	37.5	37.7	37.7	37.7	37.7
* OR >150	26.3	34.3	37.7	38.0	38.4	38.4	38.4	38.4
* OR > 0	26.9	35.1	38.4	38.8	39.1	39.1	39.1	39.1
TOTAL	145	189	207	209	211	211	211	211

TOTAL NUMBER OF OBS: 539 PCT FREQ NH <5/8: 60.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.4	19.5	14.4	9.8	5.8	5.9	8.0	7.4	17.5	.2	589

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TABLE A

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	NO PCP	.0	.1	.0	.0	.0	.2	.1	.0	.0	.0	.4	
	TOT %	.1	.1	.0	.0	.0	.2	.1	.1	.0	.0	.6	
1/2<1	PCP	.2	.0	.1	.1	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.1	.1	.1	.0	.0	.0	.1	.3	
	TOT %	.2	.0	.1	.2	.1	.1	.0	.0	.0	.1	.7	
1<2	PCP	.1	*	.0	.0	.2	.2	.0	.0	.0	.1	.5	
	NO PCP	.1	.7	.2	.0	.1	.1	.0	.0	.0	.0	1.0	
	TOT %	.1	.7	.2	.0	.2	.2	.0	.0	.0	.1	1.5	
2<5	PCP	.4	.1	.0	.0	.7	.3	.0	.2	.0	.0	1.5	
	NO PCP	.4	.4	.1	.1	.1	.7	.1	.3	.0	.0	2.1	
	TOT %	.8	.5	.1	.1	.7	.9	.1	.5	.0	.0	3.7	
5<10	PCP	.8	.6	.5	.5	.6	.8	.2	.6	.0	.0	4.7	
	NO PCP	5.7	2.7	1.0	1.6	2.8	2.2	2.0	4.5	.0	1.0	23.5	
	TOT %	6.5	3.3	1.5	2.1	3.4	3.0	2.2	5.0	.0	1.0	28.1	
10+	PCP	.5	.1	.0	.4	.4	.3	.1	.1	.0	.1	1.9	
	NO PCP	12.9	10.8	4.2	4.2	7.4	6.6	6.2	9.7	.0	1.4	63.5	
	TOT %	13.4	10.9	4.2	4.6	7.8	6.9	6.3	9.8	.0	1.5	65.4	
	TOT OBS												985
	TOT PCT	21.1	15.4	6.1	6.9	12.2	11.3	8.6	15.4	.0	2.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.0	.2	.1	.0	.0		.4	
	11-21	.1	.0	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	TOT %	.1	.1	.0	.0	.0	.2	.1	.1	.0	.0	.6	
1/2<1	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.2	
	4-10	.0	.0	.0	.1	*	.0	.0	.0	.0		.2	
	11-21	.1	.0	.1	.0	.0	.0	.0	.0	.0		.2	
	22+	.1	.0	.0	.0	.0	.0	.0	.0	.0		.1	
	TOT %	.2	.0	.1	.1	*	.1	.0	.0	.0	.1	.7	
1<2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.2	
	4-10	.0	.1	.1	*	.2	*	.0	.0	.0		.6	
	11-21	.2	.4	*	.0	.0	.0	.0	.0	.0		.6	
	22+	*	.1	.0	.0	*	.1	.0	.0	.0		.4	
	TOT %	.2	.7	.2	*	.3	.2	.0	.0	.0	.1	1.8	
2<5	0-3	.1	*	.0	.0	.0	.0	*	.0	.0	.0	.2	
	4-10	.3	.3	.0	.0	.4	*	.1	.1	.0		1.2	
	11-21	.3	.1	.0	.0	.3	.0	.0	.1	.0		.8	
	22+	.1	.0	.1	.1	.1	.9	.0	.2	.0		1.5	
	TOT %	.8	.4	.1	.1	.6	.9	.1	.5	.0	.0	3.7	
5<10	0-3	.3	.3	.1	.2	.2	.4	.1	.3	.0	1.0	3.0	
	4-10	2.5	.8	.5	1.1	.6	.2	.4	.9	.0		7.1	
	11-21	2.8	2.1	.6	.4	2.0	1.2	.8	2.5	.0		12.3	
	22+	1.0	.1	.2	.3	.5	1.1	.7	1.2	.0		5.3	
	TOT %	6.5	3.4	1.5	2.0	3.3	2.9	2.1	4.9	.0	1.0	27.7	
10+	0-3	1.4	1.0	.3	.4	.2	.5	.2	.6	.0	1.5	6.2	
	4-10	5.9	4.8	2.5	1.8	3.5	1.9	2.4	3.9	.0		26.7	
	11-21	5.3	4.7	1.1	2.3	3.3	2.7	2.6	3.5	.0		25.4	
	22+	1.1	.3	.2	.2	.8	1.7	1.0	1.9	.0		7.2	
	TOT %	13.7	10.8	4.1	4.7	7.8	6.8	6.2	9.9	.0	1.5	65.5	
	TOT OBS												1007
	TOT PCT	21.5	15.4	6.0	7.0	12.3	11.1	8.5	15.4	.0	2.7	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00603	1.4	.7	.7	5.1	11.9	7.0	4.2	1.4	.7	1.4	38.5	61.5	143
06609	.0	.7	3.9	7.2	13.7	7.8	.7	1.3	.7	.7	36.6	63.4	153
12615	1.0	.8	2.5	7.4	13.1	7.4	.0	.8	.8	.8	35.2	64.8	122
18621	.0	.7	1.3	11.9	11.9	6.0	4.0	1.3	.7	.0	37.7	62.3	151
TOT	4	4	12	51	72	40	13	7	4	4	211	352	569
PCT	.7	.7	2.1	9.0	12.7	7.0	2.3	1.2	.7	.7	37.1	62.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.7	.7	4.9	4.1	23.1	66.8	268
06609	.8	.0	.8	4.6	30.4	63.5	260
12615	.4	.0	.8	2.8	34.0	61.3	253
18621	.4	1.2	.8	3.2	24.3	70.0	247
TOT	6	7	18	38	247	672	1028
PCT	.6	.7	1.8	3.7	27.9	65.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00603	1.4	3.6	15.0	25.0	60.0	140
06609	.0	4.8	14.3	25.2	60.5	147
12615	1.0	5.6	14.8	25.0	60.2	108
18621	.0	2.8	16.7	23.6	59.7	144
TOT	4	22	82	133	324	539
PCT	.7	4.1	15.2	24.7	60.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
70/74	.0	.0	.1	.9	.9	.3	.2	.0	18	1.9
65/69	.0	.0	.3	.8	2.7	3.2	2.0	.6	93	9.7
60/64	.0	.0	.6	2.9	4.2	10.4	12.6	5.0	371	38.8
55/59	.0	.1	.3	.4	5.0	9.5	11.3	7.9	331	34.6
50/54	.0	.0	.0	.2	2.9	3.6	3.7	2.4	131	13.7
45/49	.0	.0	.0	.0	.4	.3	.2	.2	11	1.1
40/44	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
TOTAL	0	1	14	45	189	262	287	165	957	100.0
PCT	.0	.1	1.5	4.7	19.1	27.4	30.0	17.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
.4	.7	.1	.0	.2	*	.2	.3	.0	.0
2.7	2.5	.7	.4	.6	.4	.4	1.5	.0	.6
12.0	7.4	2.1	1.3	1.5	2.4	3.3	7.9	.0	.8
6.1	5.9	2.8	2.9	4.3	3.9	3.3	4.3	.0	.9
.7	1.1	.2	1.0	4.1	3.7	1.0	.8	.0	.2
.0	.0	.0	.0	.5	.4	.2	.0	.0	.0
.0	.0	.0	.0	.1	*	.0	.0	.0	.0
21.9	17.7	6.0	6.9	11.1	10.7	8.4	14.7	.0	2.6

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00603	75	73	70	62	54	50	49	61.7	340
06609	70	68	66	59	52	49	43	59.0	307
12615	67	66	64	56	50	48	46	57.4	336
18621	72	68	65	59	51	50	49	58.7	303
TOT	75	70	67	59	52	49	43	59.2	1284

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	14.0	26.4	26.0	22.9	10.9	74	258
06609	.0	3.8	19.1	29.8	30.2	17.0	78	235
12615	.0	1.7	15.4	28.6	33.2	21.2	81	241
18621	.0	4.5	15.4	25.1	34.2	20.8	80	243
TOT	0	60	188	247	293	169	78	977

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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	% FOG	NO FOG
11/13	.0	.0	.0	.0	.5	.4	.4	.3	12	.0	1.6
9/10	.0	.0	.0	.1	.3	.5	.3	.0	9	.1	1.1
7/8	.0	.0	.0	.4	2.3	1.2	.6	.1	36	.0	4.9
6	.0	.0	.0	.3	1.1	.8	.3	.0	16	.0	2.4
5	.0	.0	.0	.7	3.5	.8	.1	.0	38	.3	4.9
4	.0	.0	.0	1.9	4.1	.8	.1	.0	58	.5	7.3
3	.0	.0	.3	2.2	3.0	1.2	.1	.0	49	.0	6.6
2	.0	.0	.9	4.9	4.0	1.2	.1	.0	89	.5	11.5
1	.0	.0	2.0	5.9	4.2	.5	.1	.0	94	.4	12.3
0	.0	.4	2.4	6.9	3.5	.7	.1	.0	103	.5	13.4
-1	.0	.1	2.7	4.5	1.6	.0	.1	.0	66	.4	8.5
-2	.0	.9	1.5	2.7	.9	.0	.1	.0	45	.1	5.9
-3	.0	.4	2.2	1.3	.0	.0	.1	.0	29	.3	3.6
-4	.1	.7	2.8	1.2	.0	.0	.1	.0	36	.9	3.9
-5	.0	.8	1.9	.1	.1	.0	.1	.0	22	.1	2.8
-6	.1	1.5	.8	.5	.0	.0	.1	.0	22	.1	2.8
-7/-8	.1	.9	.4	.0	.0	.0	.1	.0	11	.1	1.3
-9/-10	.0	.3	.3	.0	.0	.0	.1	.0	4	.0	.5
TOTAL	3		135		231		14			34	707
		45		249		61		3	741		
PCT	.4	6.1	18.2	33.6	31.2	8.2	1.9	.4	100.0	4.8	95.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.8	.0	.0	.0	.0	1.4
1-2	.6	3.2	2.4	.0	.0	.0	6.2
3-4	.4	1.4	3.4	.0	.0	.0	5.2
5-6	.0	.8	2.5	1.1	.0	.0	4.3
7	.1	.0	.6	.4	.0	.0	1.0
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0
12	.1	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	6.2	9.4	1.8	.0	.0	19.0

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.3	.0	.0	.0	.0	.8
1-2	.1	4.5	2.8	.0	.0	.0	7.3
3-4	.1	1.9	3.4	.2	.0	.0	5.6
5-6	.0	.3	2.3	.0	.0	.0	2.7
7	.2	.2	.9	.0	.0	.0	1.4
8-9	.0	.0	.2	.7	.0	.0	.9
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.2	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	7.3	9.9	.9	.0	.0	18.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8
1-2	.2	3.2	.7	.0	.0	.0	4.2
3-4	.0	.7	.8	.0	.0	.0	1.5
5-6	.0	.0	1.1	.2	.0	.0	1.3
7	.0	.0	.2	.4	.0	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.5	2.8	.9	.0	.0	8.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.3	.0	.0	.0	.0	.5
1-2	.0	1.1	.9	.0	.0	.0	2.1
3-4	.0	.2	1.7	.2	.0	.0	2.1
5-6	.0	.1	.3	.1	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.6	3.0	.5	.0	.0	5.3

PERIOD: (OVER-ALL) 1963-1977 NOVEMBER AREA 0029 HAWKE BAY
TABLE 18 (CONT) 40.3S 177.1E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	3.1	1.2	.0	.0	.0	4.3
3-4	.0	.2	2.7	.0	.0	.0	2.8
5-6	.0	.2	.8	.5	.0	.0	1.4
7	.0	.0	1.3	.0	.0	.0	1.3
8-9	.0	.0	.9	.0	.0	.0	.5
10-11	.0	.0	.2	.4	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.7	6.6	.9	.0	.0	11.2

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.1	.0	.0	.0	.1
1-2	.0	1.2	.9	.0	.0	.0	2.1
3-4	.0	.5	1.2	.7	.0	.0	2.4
5-6	.2	.4	1.0	.6	.2	.0	2.5
7	.0	.0	1.0	.5	.9	.0	2.4
8-9	.0	.0	.6	.7	1.3	.0	2.6
10-11	.0	.0	.1	.3	.4	.0	.8
12	.0	.0	.0	.0	.2	.0	.2
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.2	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.2	4.8	2.8	3.4	.2	13.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	1.6	.0	.0	.0	.0	2.4
3-4	.0	.2	.4	.4	.0	.0	1.1
5-6	.0	.2	1.2	.4	.0	.0	1.8
7	.0	.0	.0	.6	.0	.0	1.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.4	.2	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.6	3.5	1.8	.6	.0	8.4

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.5	.0	.0	.0	.0	.6	
1-2	.1	1.9	1.8	.0	.0	.0	3.8	
3-4	.0	.7	1.7	.2	.0	.0	2.7	
5-6	.0	.2	1.3	.3	.0	.0	1.8	
7	.0	.0	.6	.7	.0	.0	1.3	
8-9	.0	.0	.0	1.1	.0	.0	1.1	
10-11	.0	.0	.0	.0	.2	.0	.2	
12	.0	.0	.0	.1	.0	.0	.1	
13-16	.0	.0	.0	.7	.1	.0	.7	
17-19	.0	.0	.0	.0	.0	.2	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	3.3	5.5	3.1	.3	.2	12.5	97.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.4	3.3	.0	.0	.0	.0	7.7	
1-2	.9	19.7	11.7	.0	.0	.0	32.3	
3-4	.4	5.8	15.3	1.8	.0	.0	23.2	
5-6	.4	2.2	10.4	3.1	.2	.0	16.4	
7	.2	.2	5.5	2.7	.9	.0	9.5	
8-9	.0	.0	1.8	2.4	1.3	.0	5.5	
10-11	.0	.0	.2	1.3	.9	.0	2.4	
12	.0	.0	.2	.4	.2	.0	.9	
13-16	.0	.0	.0	.9	.7	.0	1.5	
17-19	.0	.0	.0	.0	.0	.4	.4	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								452
TOT PCT	6.4	31.2	45.1	12.6	4.2	.4	100.0	

PERIOD: (OVER-ALL) 1949-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	8.6	10.8	9.8	5.7	3.3	.8	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	205	5
6-7	.0	1.0	4.5	5.7	6.9	2.6	3.3	1.0	2.6	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	142	7
8-9	.0	.4	1.2	2.0	5.3	1.8	1.0	.2	1.4	.8	.0	.2	.0	.0	.0	.0	.0	.0	.0	72	8
10-11	.0	1.4	.6	.6	1.0	1.2	1.2	.4	1.2	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	41	9
12-13	.0	.0	1.0	.8	.2	.4	.2	.8	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	18	8
>13	.0	.0	.0	.6	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	7
INDET	1.6	.2	.8	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	3
TOTAL	11	59	96	105	104	48	33	14	26	6	5	2	0	0	0	0	0	0	0	509	6
PCT	2.2	11.6	18.9	20.6	20.4	9.4	6.5	2.8	5.1	1.2	1.0	.4	.0	.0	.0	.0	.0	.0	.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1934-1971
(OVER-ALL) 1868-1971

AREA 0029 HAWKE BAY
40.4S 177.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG W/ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	3.4	2.6	1.8	.0	.0	.0	.0	7.2	1.4	1.4	4.1	.0	.5	.0	.0	85.4
NE	3.0	.8	2.8	.0	.0	.0	.0	6.6	2.0	.3	1.6	.6	2.5	.0	.0	85.6
E	4.3	1.4	1.4	.0	.0	.0	.0	7.2	3.9	.0	4.3	.0	1.4	.0	.0	83.2
SE	6.3	1.4	.7	.0	.0	.0	.0	8.4	5.4	.0	1.4	.0	1.4	.0	.0	83.3
S	8.2	9.4	6.0	.0	.0	.0	.0	23.6	1.9	.0	4.0	.0	.0	.0	.0	71.0
SW	10.1	5.3	1.6	.0	.0	.0	.0	17.1	3.8	.0	3.2	.0	2.1	.0	.0	74.1
W	2.4	.0	.7	.0	.0	.0	.0	3.0	2.0	.0	2.7	.0	1.0	.0	.0	91.2
NW	1.4	.7	1.2	.0	.0	.0	.0	3.3	.3	.0	4.2	.0	.9	.0	.0	91.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.3	.0	.0	.0	.0	.0	.0	6.3	.0	.0	.0	.0	.0	.0	.0	93.8
TOT PCT	4.7	2.6	2.3	.0	.0	.0	.0	9.6	2.2	.3	3.2	.1	1.1	.0	.0	83.2
TOT OBS:	961															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG W/ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.1	2.6	2.8	.0	.0	.0	.0	8.7	1.4	.0	3.1	.0	2.4	.0	.0	84.4
06&09	5.7	2.4	2.0	.0	.0	.0	.0	11.0	1.4	.8	1.6	.0	.8	.0	.0	84.3
12&15	3.3	2.3	1.9	.0	.0	.0	.0	7.5	3.7	.5	6.1	.0	.0	.0	.0	82.2
18&21	5.4	3.3	2.1	.0	.0	.0	.0	10.9	2.1	.0	2.5	.4	1.3	.0	.0	82.8
TOT PCT	4.6	2.7	2.2	.0	.0	.0	.0	9.5	2.1	.3	3.2	.1	1.2	.0	.0	83.6
TOT OBS:	997															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.3	8.1	7.2	1.6	.2	*		18.5	12.1	16.2	18.2	17.3	21.2	19.6	12.5	21.2	20.2
NE	1.0	6.8	7.0	1.3	.1	.0		16.2	12.0	18.5	12.5	22.5	7.4	20.6	10.0	14.1	11.6
E	.4	4.4	2.2	.4	.0	.0		7.4	9.7	8.3	8.7	10.5	7.2	7.3	8.1	4.3	4.5
SE	.7	2.9	2.8	.9	.2	.1		7.2	12.5	7.1	7.6	8.0	10.1	9.2	6.9	3.7	4.5
S	2.1	4.8	5.7	2.3	.6	.2		15.8	14.3	14.4	18.9	15.1	13.8	13.5	21.4	15.2	18.2
SW	.3	2.3	3.4	2.8	.7	.0		9.8	17.8	10.9	15.9	9.4	6.6	5.2	10.0	17.2	10.7
W	.6	2.9	3.6	1.2	.3	.0		8.6	14.2	7.3	3.0	7.3	4.5	8.7	11.7	13.8	10.1
NW	.9	4.6	5.8	1.7	.3	*		14.6	13.2	12.4	15.2	8.7	24.5	14.7	12.9	13.6	18.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.9							1.9	.0	2.9	.0	1.2	.7	1.3	4.8	1.9	2.3
TOT OBS	115	467	462	149	30	5	1228		13.0	273	66	172	139	231	62	156	129
TOT PCT	9.4	38.0	37.6	12.1	2.4	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	5.0	9.4	3.1	.9	.1		18.5	14.1	16.6	19.1	18.1	20.7
NE	3.3	9.6	2.9	.3	.0		16.2	12.0	17.3	15.8	18.5	13.0
E	2.4	4.3	.7	.0	.0		7.4	9.7	8.4	9.0	7.4	4.4
SE	2.1	3.4	1.4	.3	.1		7.2	12.5	7.2	8.9	8.7	4.0
S	4.2	6.7	2.9	1.6	.4		15.8	14.3	16.9	14.5	15.2	16.6
SW	1.1	4.0	3.0	1.4	.3		9.8	17.8	11.9	9.1	6.4	11.5
W	1.7	3.8	2.1	.9	.1		8.6	14.2	6.5	6.9	9.3	12.1
NW	3.1	7.3	3.2	1.0	*		14.6	13.2	12.9	15.8	14.3	15.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.9						1.9	.0	2.4	1.0	2.0	2.1
TOT OBS	303	597	236	79	13	1228		13.0	339	311	293	285
TOT PCT	24.7	48.6	19.2	6.4	1.1		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.4	7.7	35.4	36.0	14.2	3.5	.9	13.8	100.0	339
06&09	1.0	10.0	37.9	34.4	14.5	2.3	.0	12.8	100.0	311
12&15	2.0	2.4	39.6	44.0	9.9	1.7	.3	13.2	100.0	293
18&21	2.1	9.8	39.6	36.5	9.5	2.1	.4	11.9	100.0	285
TOT	23	92	467	462	149	30	5	13.0		1228
PCT	1.9	7.5	38.0	37.6	12.1	2.4	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	4.2	1.9	6.5	3.4		5.0
NE	4.0	3.9	5.7	4.1		3.9
E	2.0	2.4	2.6	1.8		4.5
SE	1.3	1.3	2.0	3.7		5.7
S	2.4	3.5	4.7	4.4		5.3
SW	1.3	1.6	3.0	3.2		5.6
W	3.0	1.5	1.4	.8		3.6
NW	4.1	2.0	3.7	1.9		4.3
VAR	.0	.0	.0	.0		.0
CALM	1.1	.4	.7	.4		4.0
TOT OBS	154	104	171	133	562	4.7
TOT PCT	27.4	18.5	30.4	23.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.8	.0	.1	1.2	2.3	1.3	.1	.2	.2	.3	10.7	
NE	.2	.0	.4	1.7	2.2	.7	.4	.2	.0	.0	16.1	
E	.0	.0	.0	1.5	.9	.3	.0	.0	.0	.2	5.2	
SE	.0	.0	.4	1.1	2.8	.5	.0	.2	.0	.0	3.3	
S	.0	.2	.2	2.0	2.3	.8	.9	.3	.2	.2	7.3	
SW	.2	.0	.2	1.4	2.1	.8	.5	.2	.0	.0	3.6	
W	.1	.0	.1	.2	.3	.1	.2	.0	.0	.0	6.1	
NW	.0	.0	.0	.4	.6	.5	.2	.2	.2	.4	9.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.2	.0	.2	.2	.2	.0	.0	.2	1.6	
TOT OBS	3	1	9	58	77	30	14	7	3	6	354	562
TOT PCT	.5	.2	1.6	10.3	13.7	5.3	2.5	1.2	.5	1.1	63.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
= OR >5000	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
= OR >3500	5.3	5.3	5.5	5.5	5.5	5.5	5.5	5.5
= OR >2000	9.6	10.9	11.1	11.1	11.1	11.1	11.1	11.1
= OR >1000	19.1	23.9	24.4	24.4	24.4	24.4	24.4	24.4
= OR >600	23.6	32.3	34.4	34.5	34.5	34.5	34.5	34.5
= OR >300	23.6	33.2	35.7	35.9	36.1	36.1	36.1	36.1
= OR >150	23.6	33.2	35.9	36.1	36.2	36.2	36.2	36.2
= OR > 0	23.6	33.5	36.2	36.6	36.8	36.8	36.8	36.8
TOTAL	138	196	212	214	215	215	215	215

TOTAL NUMBER OF OBS: 585 PCT FREQ NH <5/8: 63.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
19.9	18.0	14.1	8.9	6.0	5.0	7.0	7.8	17.0 .2	616

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.1	.0	.2	.1	.0	.0	.0	.0	.3	
	NO PCP	.2	.2	.3	.1	.1	.0	.0	.1	.0	.0	.9	
	TOT %	.2	.2	.4	.1	.3	.1	.0	.1	.0	.0	1.2	
1<2	PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.0	.0	.0	.1	.0	.1	.0	.0	.3	
	TOT %	.1	.2	.0	.0	.0	.1	.0	.1	.0	.0	.4	
2<5	PCP	.3	.2	.2	.2	.9	.2	.1	.0	.0	.0	2.0	
	NO PCP	.5	.2	.2	.1	.1	.2	.0	.1	.0	.0	1.5	
	TOT %	.8	.4	.4	.3	1.0	.4	.1	.1	.0	.0	3.4	
5<10	PCP	.6	.6	.2	.4	1.6	1.2	.2	.4	.0	.1	5.2	
	NO PCP	3.8	2.6	.8	2.0	3.0	2.4	1.9	3.3	.0	.0	19.9	
	TOT %	4.4	3.2	1.0	2.4	4.6	3.6	2.1	3.7	.0	.1	25.1	
10+	PCP	.4	.3	.0	.1	1.1	.2	.0	.1	.0	.0	2.1	
	NO PCP	13.1	12.5	5.4	4.6	8.6	5.4	5.6	10.8	.0	1.6	67.5	
	TOT %	13.5	12.7	5.4	4.7	9.7	5.8	5.6	10.9	.0	1.6	69.6	
	TOT OBS												941
	TOT PCT	19.0	16.7	7.3	7.5	15.5	9.8	7.7	14.9	.0	1.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.1	.0	.0	.0	.0	.0	.0	.0	.0		.1	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0		.1	
	11-21	.1	.2	.4	.1	.0	.0	.0	.0	.0		.7	
	22+	.0	.0	.0	.0	.2	.1	.0	.0	.0		.2	
	TOT %	.2	.2	.4	.1	.3	.1	.0	.1	.0	.0	1.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.0	.0	.1	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	22+	.1	.1	.0	.0	.0	.1	.0	.0	.0		.2	
	TOT %	.1	.2	.0	.0	.0	.1	.1	.1	.0	.0	.5	
2<5	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.3	.3	.3	.0	.3	.1	.0	.1	.0		1.2	
	11-21	.1	.1	.2	.1	.5	.1	.0	*	.0		1.0	
	22+	.3	.1	.0	.3	.3	.3	.1	.1	.0		1.3	
	TOT %	.8	.4	.5	.4	1.0	.4	.1	.1	.0	.0	3.6	
5<10	0-3	.3	.1	.0	.2	.6	.1	.1	.5	.0	.1	1.8	
	4-10	1.5	1.0	.5	1.0	.8	.5	.7	1.0	.0		6.8	
	11-21	1.8	1.3	.4	.9	2.1	1.5	.8	1.5	.0		10.1	
	22+	.7	.9	.1	.4	1.1	1.5	.4	.8	.0		5.7	
	TOT %	4.3	3.2	1.0	2.4	4.5	3.5	2.0	3.6	.0	.1	24.5	
10+	0-3	1.0	1.2	.6	.6	1.9	.3	.7	.5	.0	1.5	8.0	
	4-10	6.6	5.8	3.2	1.8	3.3	1.5	1.9	4.8	.0		28.9	
	11-21	4.9	5.3	1.4	1.6	2.8	2.2	2.3	4.2	.0		24.7	
	22+	1.0	.7	.4	.7	1.5	1.6	1.2	1.5	.0		8.4	
	TOT %	13.5	13.0	5.5	4.7	9.5	5.5	6.0	10.9	.0	1.5	70.0	
	TOT OBS												997
	TOT PCT	18.9	16.8	7.3	7.5	15.2	9.6	8.1	14.9	.0	1.6	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.6	.6	8.7	12.8	3.5	1.2	.6	.0	1.2	29.7	70.3	172
06&09	.0	.0	2.5	11.9	14.4	4.4	3.1	3.1	.6	.0	40.0	60.0	160
12&15	.0	.0	1.6	5.7	13.9	7.4	1.6	.8	.8	1.6	33.6	66.4	122
18&21	1.3	.0	1.3	12.1	10.7	7.4	4.0	.0	.7	2.0	39.6	60.4	149
TOT	3	1	9	59	78	33	15	7	3	7	215	388	603
PCT	.5	.2	1.5	9.8	12.9	5.5	2.5	1.2	.5	1.2	35.7	64.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.7	1.0	.7	3.1	23.5	71.1	294
06&09	.0	.0	.4	3.8	29.5	65.5	264
12&15	.4	1.3	.0	4.8	28.1	65.4	228
18&21	.0	1.6	.8	2.8	17.0	77.7	247
TOT	3	12	5	37	253	723	1033
PCT	.3	1.2	.5	3.6	24.5	70.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.6	2.4	13.0	18.9	68.0	169
06&09	.0	2.5	15.9	25.5	58.6	157
12&15	.0	1.7	9.4	26.5	64.1	117
18&21	1.4	2.8	15.5	26.1	58.5	142
TOT	3	14	80	140	365	585
PCT	.5	2.4	13.7	23.9	62.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.1	.1	.0	.1	.2	.1	.0	6	.6
70/74	.1	.1	.3	.4	.7	1.9	1.3	.5	55	5.5
65/69	.0	.0	.3	1.7	3.4	5.2	7.4	4.0	220	22.0
60/64	.0	.1	.2	1.7	4.1	12.0	13.2	9.1	404	40.5
55/59	.0	.1	.0	1.1	4.4	8.8	6.5	5.9	270	27.1
50/54	.0	.0	.0	.3	1.6	.4	.7	1.1	41	4.1
45/49	.0	.0	.0	.0	.2	.0	.0	.0	2	.2
TOTAL	1	4	9	54	147	285	292	206	998	100.0
PCT	.1	.4	.9	5.4	14.7	28.6	29.3	20.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.1	.3	.0	.0	.0	.0	.1	.0	.0	.1
	1.3	1.6	.4	.1	.3	.3	.5	.6	.0	.5
	5.7	4.4	1.6	.8	1.6	1.0	2.8	4.0	.0	.2
	9.8	7.6	2.5	2.0	4.7	2.1	3.8	7.1	.0	1.0
	1.9	2.1	1.5	4.5	8.2	5.6	1.4	1.8	.0	.1
	.0	.0	.0	.3	1.8	1.6	.1	.4	.0	.0
	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0
	18.8	16.0	5.9	7.7	16.7	10.6	8.5	13.9	.0	1.9

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	79	75	72	64	55	51	51	63.9	341
06&09	77	75	70	62	55	51	51	62.4	313
12&15	73	68	66	61	54	49	49	60.4	309
18&21	73	71	68	62	55	51	51	61.7	289
TOT	79	73	70	62	55	51	49	62.2	1252

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	8.6	20.5	30.6	26.1	14.2	76	268
06&09	.0	8.3	12.4	31.2	26.7	21.4	78	266
12&15	.0	2.8	11.7	26.7	32.8	25.9	82	247
18&21	.4	6.1	13.8	26.7	31.6	21.5	79	247
TOT	1	67	151	297	300	212	79	1028

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	% FOG	NO FOG
14/16	.0	.0	.0	.1	.1	.0	.1	.1	4	.0	.6
11/13	.0	.0	.0	.0	.1	.1	.1	.0	3	.0	.4
9/10	.0	.0	.0	.4	.8	.7	.6	.1	19	.0	2.6
7/8	.0	.0	.0	1.1	1.0	.7	.4	.0	23	.0	3.2
6	.0	.0	.0	1.3	2.1	.6	.0	.0	28	.0	3.9
5	.0	.0	.6	2.2	2.8	1.0	.3	.0	49	.0	6.8
4	.0	.1	.3	1.4	2.2	.8	.0	.0	35	.1	4.7
3	.0	.0	1.0	2.5	3.5	.4	.0	.0	53	.0	7.4
2	.0	.1	1.3	4.3	2.5	.4	.0	.0	62	.4	8.2
1	.0	.4	2.1	5.4	2.2	.4	.0	.0	76	.6	10.0
0	.0	.6	3.2	6.1	3.3	.4	.0	.0	96	1.4	12.3
-1	.0	.8	4.6	5.3	.9	.0	.0	.0	83	1.1	10.4
-2	.1	1.0	3.9	2.4	.4	.0	.0	.0	56	.3	7.5
-3	.1	1.1	3.9	.7	.3	.0	.0	.0	44	.0	6.1
-4	.3	1.4	1.8	1.3	.0	.0	.0	.0	34	.3	4.5
-5	.0	1.0	1.7	.4	.1	.0	.0	.0	23	.1	3.1
-6	.3	1.0	.6	.0	.0	.0	.0	.0	13	.0	1.8
-7/-8	.1	.7	.6	.1	.0	.0	.0	.0	11	.0	1.5
-9/-10	.0	.3	.1	.0	.0	.0	.0	.0	3	.0	.4
-11/-13	.1	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	8	61	183	252	161	40	11	2	718	31	687
PCT	1.1	8.5	25.5	35.1	22.4	5.6	1.5	.3	100.0	4.3	95.7

PERIOD: (OVER-ALL) 1868-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.7	.0	.0	.0	.0	1.8
1-2	.4	3.1	2.2	.0	.0	.0	5.7
3-4	.2	2.4	3.4	.0	.0	.0	6.1
5-6	.0	.2	1.1	.3	.0	.0	1.6
7	.0	.0	.7	.5	.4	.0	1.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	7.4	7.5	1.3	.4	.0	17.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	1.4	.0	.0	.0	.0	2.3
1-2	.0	3.4	.7	.0	.0	.0	4.1
3-4	.4	3.0	3.7	.2	.0	.0	7.3
5-6	.0	.3	3.4	.9	.0	.0	4.6
7	.0	.0	.7	.3	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.2	.0	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	10.1	9.6	1.6	.0	.0	21.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.6	.0	.0	.0	.0	1.2
1-2	.0	2.0	.0	.0	.0	.0	2.0
3-4	.0	1.5	1.4	.2	.0	.0	3.3
5-6	.0	.2	.0	.3	.0	.0	.5
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.3	1.6	.5	.0	.0	7.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	1.4	.3	.0	.0	.0	1.6
3-4	.0	.5	1.3	.2	.0	.0	1.9
5-6	.0	.0	.9	.7	.0	.0	1.6
7	.0	.0	.2	.4	.0	.0	.6
8-9	.0	.2	.1	.6	.0	.0	.9
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.2	2.7	2.1	.2	.0	7.3

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

TABLE 18 (CONT)

AREA 0029 HAWKE BAY 40.4S 177.0E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.8	.0	.0	.0	.0	1.6
1-2	.0	1.9	1.8	.0	.0	.0	3.7
3-4	.0	1.3	2.0	.4	.0	.0	3.7
5-6	.0	.0	2.0	.9	.2	.0	3.2
7	.0	.0	.9	.6	.2	.0	1.6
8-9	.0	.0	.2	.4	.4	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.2	.2
33-40	.0	.0	.0	.0	.2	.0	.2
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.0	6.8	2.3	1.0	.2	15.1

S+

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	.0	.0	.0	.0	.1
1-2	.0	.9	.7	.0	.0	.0	1.6
3-4	.0	.9	2.0	.7	.0	.0	3.6
5-6	.0	.2	1.8	.1	.2	.0	2.3
7	.0	.0	.2	1.6	.7	.0	2.5
8-9	.0	.0	.0	.3	.2	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.1	4.6	2.8	1.3	.0	10.9

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.2	.0	.0	.0	.0	.4	
1-2	.2	1.1	.0	.0	.0	.0	1.3	
3-4	.0	.7	1.5	.2	.0	.0	2.3	
5-6	.0	.0	.7	.3	.0	.0	1.0	
7	.0	.0	.2	.9	.3	.0	1.4	
8-9	.0	.0	.2	.3	.2	.0	.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	2.0	2.4	1.7	.5	.0	7.3	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.3	.0	.0	.0	.0	.3	
1-2	.0	2.6	1.1	.0	.0	.0	3.7	
3-4	.0	1.6	1.5	.6	.0	.0	3.8	
5-6	.0	.0	1.3	.4	.0	.0	1.7	
7	.0	.0	.3	.5	.1	.0	.8	
8-9	.0	.0	.2	.0	.2	.0	.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.2	.2	.0	.0	.4	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	4.4	4.6	1.7	.5	.0	11.2	97.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.5	5.1	.0	.0	.0	.0	10.7	
1-2	1.0	18.3	6.6	.0	.0	.0	25.9	
3-4	.6	11.7	16.6	2.5	.0	.0	31.4	
5-6	.0	.4	11.1	3.9	.4	.0	16.2	
7	.0	.0	3.3	4.7	1.6	.0	9.7	
8-9	.0	.2	.6	1.8	1.0	.0	3.7	
10-11	.0	.0	.0	.2	.2	.0	.4	
12	.0	.0	.0	.4	.0	.0	.4	
13-16	.0	.0	.2	.4	.0	.0	.6	
17-19	.0	.0	.0	.0	.2	.0	.2	
20-22	.0	.0	.2	.0	.0	.0	.2	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	.2	.2	
33-40	.0	.0	.0	.0	.2	.0	.2	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.2	36.1	38.6	14.0	3.9	.2	100.0	487

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.3	7.2	10.8	7.6	3.4	.9	1.1	.4	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	193	4
6-7	.2	1.1	4.7	5.4	6.1	2.7	2.7	.7	1.8	.5	.4	.2	.0	.0	.0	.0	.0	.0	.0	147	7
8-9	.0	.5	1.1	2.3	5.1	3.6	2.3	1.1	1.1	.2	.0	.0	.4	.0	.0	.0	.0	.0	.0	97	8
10-11	.0	1.1	1.1	1.4	1.1	.7	.9	.7	1.1	.0	.5	.0	.4	.0	.0	.0	.0	.0	.0	50	9
12-13	.0	.0	1.6	1.3	.4	.9	.5	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	28	7
>13	.0	.0	.0	.4	.4	.2	.0	.0	.0	.4	.2	.0	.2	.4	.0	.0	.0	.0	.0	11	16
INDET	1.8	.4	.4	.9	.7	.2	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	4
TOTAL	24	57	109	107	95	50	43	16	29	9	6	1	5	3	0	0	0	0	0	554	6
PCT	4.3	10.3	19.7	19.3	17.1	9.0	7.8	2.9	5.2	1.6	1.1	.2	.9	.5	.0	.0	.0	.0	.0	100.3	

ANNUAL

PERIOD: (PRIMARY) 1928-1970
(OVER-ALL) 1863-1970

AREA 0029 HAWKE BAY
40.3S 177.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	3.1	1.1	1.7	.0	.0	.0	.0	5.9	1.2	.5	3.2	*	1.7		.1	87.4
NE	5.2	1.9	3.8	.0	.0	.0	.0	10.6	2.2	.2	4.5	.1	2.5		.4	79.6
E	6.2	5.9	4.0	.0	.0	.0	.0	16.1	3.6	.3	3.9	.0	1.2		.2	74.7
SE	6.6	6.7	4.1	.0	.0	.0	.0	17.1	9.4	.1	4.1	.0	.5		.1	74.6
S	7.8	7.0	3.6	.0	.0	.0	.1	18.5	4.3	.3	3.9	*	.7		.1	72.2
SW	7.0	6.4	2.5	.0	.0	.0	.3	16.0	4.4	.5	2.9	.0	.4		*	75.8
W	2.1	.9	.6	.0	.0	.0	.0	3.6	1.9	.9	2.4	.0	.4		.1	91.1
NW	2.3	1.3	1.2	.0	.0	.0	.0	4.8	.7	.4	3.6	*	.9		.2	89.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	3.1	.0	.7	.0	.0	.0	.0	3.8	1.2	1.2	3.1	1.2	1.8		.0	88.1
TOT PCT	5.0	3.7	2.6	.0	.0	.0	.1	11.2	2.6	.4	3.5	*	1.2		.1	80.9
TOT OBS: 11884																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.7	3.6	2.4	.0	.0	.0	.0	10.6	2.1	*	3.6	.0	1.9		.1	81.7
06&09	5.7	3.3	2.2	.0	.0	.0	.1	11.2	2.7	.3	2.5	.1	1.7		.1	81.5
12&15	3.8	4.9	2.4	.0	.0	.0	.2	11.3	2.9	1.2	5.3	*	.6		.2	78.8
18&21	5.3	2.8	3.1	.0	.0	.0	.1	11.3	2.9	.5	3.1	.1	.6		.2	81.5
TOT PCT	4.9	3.6	2.5	.0	.0	.0	.1	11.1	2.6	.5	3.6	*	1.2		.1	80.9
TOT OBS: 12283																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)						
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.4	4.8	6.5	1.6	.2	*		16.8	12.1	15.8	16.6	13.9	17.2	17.0	15.0	16.7	17.8
NE	1.1	5.4	5.0	.9	.1	.0		13.5	11.8	14.0	15.5	18.0	12.3	13.5	10.6	11.8	10.7
E	.4	3.3	2.2	.4	.1	.0		6.4	11.2	6.9	7.9	9.1	6.9	6.1	5.5	5.7	3.0
SE	.7	3.5	2.7	.6	.2	*		7.6	11.7	7.7	9.8	8.3	9.3	7.3	7.2	5.4	7.1
S	1.1	5.2	6.2	3.1	.9	.1		16.5	15.3	16.2	18.2	18.7	17.8	15.1	16.5	15.1	16.7
SW	.7	3.9	5.3	3.1	1.4	.1		14.5	17.4	15.3	12.9	13.8	11.4	13.9	14.4	18.4	14.9
W	.6	1.4	3.2	1.2	.3	*		6.7	13.8	7.0	5.3	6.6	6.4	10.1	11.1	12.0	9.2
NW	1.2	5.5	5.5	1.7	.9	.1		14.3	13.0	13.9	12.3	9.8	16.4	14.7	17.2	13.5	17.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.2							2.2	.0	2.3	1.4	2.0	2.4	2.3	2.4	1.2	3.1
TOT OBS							15195		13.4	3375	970	1885	1785	2796	1000	1881	1503
TOT PCT	9.4	37.0	47.5	12.5	3.4	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.9	8.4	3.3	.6	.1		16.3	12.1	16.0	15.5	16.5	17.2
NE	3.2	7.2	2.8	.3	*		13.5	11.8	14.5	15.3	12.8	11.2
E	1.8	3.4	1.0	.2	*		6.4	11.2	7.1	8.0	6.0	4.5
SE	2.3	3.7	1.4	.3	.1		7.6	11.7	8.2	9.8	7.2	6.2
S	3.2	6.6	4.6	1.9	.3		16.5	15.3	16.7	18.2	15.4	15.7
SW	2.3	5.0	4.5	2.2	.5		14.5	17.4	14.7	12.6	14.0	16.8
W	1.9	3.8	2.9	.7	.1		8.7	13.8	7.4	6.5	10.4	10.8
NW	3.6	6.7	3.3	.8	.2		14.3	13.0	13.5	12.9	15.4	15.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.2						2.2	.0	2.1	2.2	2.3	2.1
TOT OBS						15195		13.4	4345	3670	3796	3384
TOT PCT	24.2	44.7	23.0	6.9	1.2		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00603	2.1	7.8	35.5	37.4	13.4	3.6	.3	13.6	100.0	4345
06609	2.2	7.8	37.4	36.5	12.1	3.5	.5	13.2	100.0	3670
12615	2.3	4.1	37.6	39.8	13.2	2.8	.2	13.7	100.0	3796
18621	2.1	9.0	37.7	36.4	10.8	3.7	.2	12.9	100.0	3384
TOT								13.4		15195
PCT	2.2	7.2	37.0	37.5	12.5	3.4	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.3	2.3	4.9	2.4		4.2
NE	5.0	2.1	4.5	3.4		4.7
E	1.3	1.1	2.2	2.3		5.5
SE	.9	.9	2.4	3.2		6.1
S	2.5	2.4	6.4	4.4		5.5
SW	3.5	2.6	6.1	4.2		5.1
W	4.3	1.8	2.2	.9		3.4
NW	5.0	2.1	3.5	1.4		3.7
VAR	.0	.0	.0	.0		.0
CALM	1.0	.4	.5	.3		3.4
TOT OBS					6686	4.7
TOT PCT	28.9	15.5	32.8	22.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	*	*	.2	.7	1.6	.9	.3	.1	.2	.2	10.5	
NE	.1	*	.3	1.3	2.0	.9	.4	.1	*	.1	9.8	
E	.1	*	.2	1.2	1.4	.5	.2	*	*	*	3.3	
SE	.1	*	.2	1.7	1.7	.6	.1	.1	*	*	2.6	
S	.1	.1	.6	2.7	3.4	1.6	.5	.1	*	*	6.5	
SW	.1	*	.6	2.6	3.3	1.3	.4	.1	.0	*	7.9	
W	.1	*	.1	.3	.8	.4	.1	.1	*	.1	7.3	
NW	*	.0	.1	.4	1.2	.6	.3	.1	.1	.1	9.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	*	.0	*	.1	.2	.1	*	.0	*	*	1.7	
TOT OBS												6686
TOT PCT	.7	.2	2.3	11.1	15.7	7.0	2.5	.7	.4	.7	58.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
* OR >5000	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.7
* OR >3500	3.6	4.1	4.2	4.2	4.2	4.2	4.2	4.2
* OR >2000	9.3	11.0	11.1	11.2	11.2	11.2	11.2	11.2
* OR >1000	20.9	25.9	26.6	26.7	26.8	26.8	26.8	26.8
* OR >600	26.2	35.3	37.2	37.5	37.6	37.7	37.7	37.7
* OR >300	26.8	36.7	39.3	39.6	39.8	39.9	39.9	39.9
* OR >150	26.8	36.8	39.5	39.9	40.1	40.1	40.1	40.1
* OR > 0	27.0	37.2	40.0	40.5	40.7	40.8	40.8	40.8

TOTAL NUMBER OF OBS: 6870 PCT FREQ NH <5/8: 59.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
14.3	16.9	11.7	8.9	7.8	6.1	8.1	9.9	17.6 .2	7283

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	.0	.0	*	*	*	.0	*	.0	*	.1	
	NO PCP	*	*	.0	*	*	*	*	*	.0	*	.1	
	TOT %	.1	*	.0	*	.1	.1	*	*	.0	*	.2	
1/2<1	PCP	*	*	.1	.1	.1	.1	*	*	.0	*	.5	
	NO PCP	.1	.2	.1	.1	.1	.1	*	.2	.0	*	1.0	
	TOT %	.2	.2	.1	.2	.2	.2	.1	.2	.0	*	1.5	
1<2	PCP	*	.1	*	*	.2	.1	*	*	.0	*	.5	
	NO PCP	*	.1	*	*	*	*	*	*	.0	*	.3	
	TOT %	.1	.2	.1	*	.3	.1	*	.1	.0	*	.9	
2<5	PCP	.2	.1	.1	.2	.3	.3	*	.1	.0	.0	1.6	
	NO PCP	.2	.2	.1	.2	.3	.4	.1	.2	.0	.0	1.6	
	TOT %	.4	.3	.2	.4	.8	.7	.1	.3	.0	.0	3.2	
5<10	PCP	.4	.8	.6	.7	1.5	1.3	.2	.4	.0	*	5.8	
	NO PCP	3.5	2.9	1.5	2.0	3.5	3.1	1.8	3.3	.0	.5	22.1	
	TOT %	3.9	3.7	2.0	2.7	5.0	4.3	2.0	3.7	.0	.5	27.9	
10+	PCP	.3	.3	.2	.3	.7	.7	.1	.2	.0	*	2.8	
	NO PCP	11.1	8.9	3.6	4.2	9.1	8.7	6.3	10.0	.0	1.6	63.6	
	TOT %	11.4	9.2	3.8	4.4	9.8	9.4	6.4	10.3	.0	1.6	66.3	
	TOT OBS												11890
	TOT PCT	15.9	13.6	6.2	7.5	16.2	14.8	8.6	14.6	.0	2.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	*	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	*	*	.0	*	*	*	*	*	.0		.1	
	11-21	*	.0	.0	.0	*	*	.0	.0	.0		*	
	22+	*	*	.0	*	*	*	.0	*	.0		.1	
	TOT %	.1	*	.0	*	.1	.1	*	*	.0	*	.2	
1/2<1	0-3	*	*	*	*	*	*	*	*	.0	*	.2	
	4-10	.1	.1	*	.1	.1	.1	*	.2	.0		.7	
	11-21	*	.1	.1	*	*	.1	*	*	.0		.4	
	22+	*	*	.0	*	.1	*	*	*	.0		.2	
	TOT %	.2	.2	.1	.2	.2	.2	.1	.2	.0	*	1.5	
1<2	0-3	*	*	*	.0	*	*	.0	.0	.0	*	.1	
	4-10	*	.1	*	*	.1	*	*	*	.0		.4	
	11-21	*	.1	*	*	.1	*	*	.1	.0		.3	
	22+	*	*	*	*	.1	.1	*	*	.0		.3	
	TOT %	.1	.2	.1	.1	.3	.2	.1	.1	.0	*	1.1	
2<5	0-3	.1	*	*	*	*	*	*	*	.0	.0	.2	
	4-10	.1	.1	.1	.1	.2	.1	.1	.1	.0		.9	
	11-21	.1	.1	.1	.1	.3	.1	*	*	.0		.9	
	22+	.1	.1	*	.1	.4	.5	*	.1	.0		1.3	
	TOT %	.4	.3	.3	.4	.9	.7	.1	.3	.0	.0	3.3	
5<10	0-3	.3	.3	.1	.2	.2	.2	.2	.3	.0	.5	2.4	
	4-10	1.5	1.4	.9	1.0	1.2	1.0	.7	1.2	.0		8.8	
	11-21	1.5	1.6	.8	1.0	2.0	1.3	.6	1.4	.0		10.3	
	22+	.6	.4	.2	.5	1.5	1.6	.5	.7	.0		6.2	
	TOT %	3.9	3.7	2.0	2.7	4.9	4.3	1.9	3.7	.0	.5	27.7	
10+	0-3	1.2	.9	.3	.6	.9	.5	.4	1.0	.0	1.6	7.2	
	4-10	5.0	3.7	2.0	2.2	3.4	2.9	2.5	4.0	.0		25.7	
	11-21	4.4	4.1	1.2	1.5	3.8	3.8	2.5	4.0	.0		25.2	
	22+	.9	.6	.2	.3	1.8	2.2	1.0	1.1	.0		7.9	
	TOT %	11.4	9.2	3.7	4.5	9.8	9.3	6.4	10.2	.0	1.6	66.1	
	TOT OBS												12148
	TOT PCT	16.0	13.6	6.2	7.9	16.2	14.7	8.8	14.5	.0	2.2	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	0&0 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.8	.4	2.2	10.3	14.9	6.6	2.6	.7	.3	.5	39.4	60.6	2002
06&09	.4	.3	2.8	11.3	15.6	6.6	1.9	.8	.3	.8	40.8	59.2	1820
12&15	.8	.1	1.7	9.6	13.3	7.4	2.0	.6	.5	.8	36.7	63.3	1482
18&21	.6	.2	1.9	11.0	16.6	6.7	3.0	.4	.4	.6	41.5	58.5	1787
TOT													7091
PCT	.7	.2	2.2	10.6	15.2	6.8	2.4	.6	.4	.6	39.7	60.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.3	1.9	1.4	3.1	28.6	64.6	3679
06&09	.2	1.0	1.5	4.4	28.8	64.1	3086
12&15	.2	1.4	.4	2.6	31.9	63.3	2900
18&21	.2	1.3	.8	3.3	21.7	72.7	2884
TOT							12549
PCT	.3	1.4	1.1	3.3	27.9	66.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.8	3.9	15.4	25.1	59.5	1961
06&09	.5	3.6	16.4	25.7	57.8	1775
12&15	.9	2.8	13.7	25.3	61.0	1400
18&21	.6	3.1	15.5	27.5	57.0	1734
TOT						6870
PCT	.7	3.4	15.4	25.9	58.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
83/89	.0	.0	.0	.0	*	.0	.0	.0		*
75/79	.0	*	*	.1	.1	.1	.1	*		.4
70/74	*	*	.1	.3	.5	1.0	.9	.4		3.3
65/69	*	*	.1	.7	1.7	3.4	4.1	3.0		13.0
60/64	.0	.1	.1	1.1	3.8	7.7	7.8	5.4		26.1
55/59	.0	*	.2	.8	4.7	9.5	9.1	5.9		30.2
50/54	.0	.0	.1	.7	3.9	4.7	7.1	4.0		20.6
45/49	.0	.0	.0	.1	.8	1.9	1.7	1.4		5.9
40/44	.0	.0	.0	.0	*	.2	.2	.1		.5
35/39	.0	.0	.0	.0	.0	*	*	*		.1
TOTAL									11619	100.0
PCT	*	.2	.6	3.8	15.5	28.5	31.1	20.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	*	.0	.0
.1	.1	*	*	*	*	*	*	.0	*
.8	.8	.2	.1	.2	.1	.3	.6	.0	.2
3.2	2.5	1.0	.7	1.1	.8	1.1	2.4	.0	.3
5.4	4.5	1.9	1.9	3.1	2.3	2.2	4.2	.0	.6
4.9	4.0	1.9	2.3	4.8	4.3	2.9	4.6	.0	.5
1.9	1.7	1.0	1.7	5.0	5.0	1.9	1.9	.0	.4
.2	.3	.2	.5	2.1	2.0	.4	.2	.0	.1
*	*	*	*	.2	.2	*	*	.0	*
.0	*	.0	*	*	.0	.0	*	.0	.0
16.4	13.9	6.2	7.3	16.5	14.7	8.9	13.9	.0	2.1

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	86	71	68	60	53	49	41	60.1	4408
06&09	82	68	65	59	52	49	34	58.7	3898
12&15	83	65	63	58	51	48	41	57.8	3887
18&21	75	67	64	58	51	48	36	58.0	3399
TOT	86	69	65	59	51	49	34	58.7	15382

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.9	20.9	30.0	26.4	14.9	77	3380
06&09	.1	4.2	14.7	28.7	31.9	20.4	80	2932
12&15	.0	2.2	13.3	26.9	34.1	23.5	81	2891
18&21	*	3.7	12.9	27.6	33.3	23.1	81	2781
TOT	4	363	1858	3402	3737	2420	79	11984

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	1	.0	*
14/16	.0	.0	.0	.0	.1	.1	*	*	*	*	*	.0	25	.0	.3
11/13	.0	.0	.0	.1	.1	.2	.2	.2	.1	*	*	*	71	*	.8
9/10	.0	.0	.0	*	.1	.2	.3	.2	.1	*	.0	.0	87	*	.9
7/8	.0	.0	*	.1	.2	.7	.6	.4	.2	*	.0	.0	202	.1	2.1
6	.0	.0	.0	*	.2	.5	.5	.3	.1	.0	.0	.0	146	*	1.6
5	.0	*	.1	.1	.8	1.3	.9	.4	.2	.0	.0	.0	336	.1	3.7
4	.0	*	.1	.4	1.3	1.7	.8	.5	.1	*	.0	.0	423	.2	4.6
3	.0	.0	.1	.5	1.3	1.4	1.1	.5	*	.0	.0	.0	431	.2	4.6
2	.0	.1	.2	1.3	2.1	2.3	1.6	.5	.1	.0	.0	.0	717	.4	7.7
1	*	*	.2	1.6	2.7	2.5	1.6	.4	*	.0	.0	.0	813	.5	8.7
0	*	.1	.9	2.7	3.8	3.2	2.1	.3	*	.0	.0	.0	1157	.7	12.3
-1	.0	.1	1.1	2.5	2.8	2.5	1.3	.1	*	.0	.0	.0	930	.6	9.8
-2	*	.2	1.3	2.5	2.2	2.0	.6	*	.0	.0	.0	.0	780	.4	8.5
-3	.0	.1	1.6	2.6	1.8	1.2	.4	*	.0	.0	.0	.0	623	.4	6.7
-4	*	.3	1.7	2.3	1.6	1.0	.3	*	.0	.0	.0	.0	617	.4	6.8
-5	*	.7	1.8	1.6	1.3	.6	.2	*	.0	.0	.0	.0	524	.2	5.9
-6	*	.5	1.3	.9	.5	.3	.1	.0	.0	.0	.0	.0	305	.1	3.5
-7/-8	*	.6	1.4	.9	.8	.2	*	.0	.0	.0	.0	.0	366	.1	4.2
-9/-10	.1	.5	.7	.4	.2	.1	*	.0	.0	.0	.0	.0	177	*	2.0
-11/-13	.1	.2	.3	.1	.1	*	.0	.0	.0	.0	.0	.0	63	.0	.7
-14/-16	.0	.1	*	*	.0	.0	.0	.0	.0	.0	.0	.0	10	.0	.1
-17/-19	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	.0	*
TOTAL													8809		
PCT	.4	3.9	12.5	20.0	24.0	21.8	12.6	3.9	1.0	.1	*	*	100.0	4.5	95.5

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.7	*	.0	.0	.0	1.2
1-2	.3	3.5	1.3	.0	.0	.0	5.0
3-4	.1	1.3	2.8	.2	.0	.0	4.4
5-6	*	.3	1.6	.4	*	.0	2.3
7	.0	*	.4	.3	.1	.0	1.0
8-9	.0	*	.2	.1	.1	.0	.4
10-11	.0	.0	*	.1	*	.0	.1
12	.0	.0	*	*	.0	.0	.1
13-16	.0	*	*	*	*	.0	.1
17-19	.0	.0	.0	*	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	5.8	6.5	1.2	.2	.0	14.5

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.6	.0	.0	.0	.0	1.0
1-2	.1	3.0	1.4	.0	.0	.0	4.5
3-4	.1	1.4	3.1	.3	.0	.0	4.8
5-6	*	.2	2.0	.3	*	.0	2.5
7	*	.1	.8	.3	*	.0	1.2
8-9	.0	*	.1	.4	*	.0	.5
10-11	.0	.0	.1	.1	*	.0	.2
12	.0	.0	*	*	.0	.1	.0	.1
13-16	.0	.0	.0	.1	*	.0	.1
17-19	.0	.0	.0	*	.0	.0	*
20-22	.0	.0	.0	*	.0	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.3	7.4	1.5	.1	.0	15.0

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8
1-2	.1	1.9	.2	.0	.0	.0	2.2
3-4	.0	.7	1.1	.1	.0	.0	1.9
5-6	*	.1	.7	.1	.0	.0	1.0
7	.0	*	.3	.2	*	.0	.5
8-9	.0	.0	.1	.1	.1	.0	.2
10-11	.0	.0	*	.1	.0	.0	.1
12	.0	.0	*	*	.0	.0	*
13-16	.0	.0	*	*	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	*	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.3	2.4	.5	.1	.0	6.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.5	.0	.0	.0	.0	.6
1-2	.1	1.6	.3	.0	.0	.0	2.1
3-4	.0	.7	1.4	.1	.0	.0	2.2
5-6	*	.1	.8	.2	.0	.0	1.2
7	.0	*	.3	.2	.1	.0	.6
8-9	.0	*	.1	.1	*	.0	.2
10-11	.0	*	*	.1	.1	.0	.2
12	.0	*	*	*	*	.0	.1
13-16	.0	.0	.0	*	*	.0	*
17-19	.0	*	*	*	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	*	*
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.1	3.0	.7	.2	*	7.2

PERIOD: (OVER-ALL) 1963-1978

ANNUAL

TABLE 18 (CONT)

AREA 0029 HAWKE BAY 40.3S 177.1E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.6	.0	.0	.0	.0	.9
1-2	.1	2.3	1.2	.0	.0	.0	3.7
3-4	*	.9	2.5	.3	.0	.0	3.8
5-6	*	.3	2.2	.7	.1	.0	3.4
7	.0	.0	.8	1.0	.2	.0	2.0
8-9	.0	*	.3	.4	.2	*	.9
10-11	.0	*	.1	.4	.3	.0	.8
12	.0	.0	.0	.1	.1	.0	.2
13-16	.0	.0	*	.1	.2	*	.3
17-19	.0	.0	.0	.1	*	.0	.2
20-22	.0	.0	.0	*	*	.0	.1
23-25	.0	.0	.0	*	.0	.0	*
26-32	.0	.0	.0	.0	.0	*	*
33-40	.0	.0	.0	.0	*	.0	*
41-48	.0	.0	.0	.0	.0	*	*
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.2	7.2	3.2	1.1	.1	16.3

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	*	.0	.0	.0	.4
1-2	.2	2.4	1.2	.0	.0	.0	3.8
3-4	*	1.1	2.7	.4	.0	.0	4.3
5-6	*	.2	1.5	.6	.3	.0	2.6
7	.0	*	.8	.9	.4	*	2.1
8-9	.0	*	.3	.5	.3	.1	1.2
10-11	.0	*	.1	.4	.3	.1	.8
12	.0	.0	.1	.3	.1	.0	.4
13-16	.0	.0	.1	.2	.4	*	.7
17-19	.0	.0	.0	*	*	.1	*	.2
20-22	.0	.0	.0	.0	*	*	.0	.1
23-25	.0	.0	.0	.0	*	.1	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.1	.1
41-48	.0	.0	.0	.0	.0	.0	*	*
49-60	.0	.0	.0	.0	.0	.0	*	*
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.0	6.8	3.4	2.1	.2	16.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.1	.0	.0	.0	.6
1-2	.1	2.0	.6	.0	.0	.0	2.7
3-4	*	1.0	1.6	.2	.0	.0	2.8
5-6	.0	.1	.9	.4	*	.0	1.4
7	.0	*	.4	.4	.1	.0	.8
8-9	.0	*	.1	.1	.1	.0	.3
10-11	.0	.0	.1	.1	.1	.0	.2
12	.0	.0	*	*	.0	.0	.1
13-16	.0	.0	.0	*	*	.0	.1
17-19	.0	.0	.0	.0	*	.0	*
20-22	.0	.0	.0	.0	*	.0	*
23-25	.0	.0	*	.0	.0	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.5	3.7	1.3	.3	.0	9.2

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.5	*	.0	.0	.0	.7	
1-2	.2	2.6	1.2	.0	.0	.0	4.0	
3-4	.1	.9	2.3	.2	.0	.0	3.4	
5-6	*	.2	1.4	.4	.1	.0	2.1	
7	.0	.1	.6	.3	.1	.0	1.0	
8-9	.0	*	.1	.2	.1	.0	.3	
10-11	.0	.0	*	.1	.1	.0	.1	
12	.0	.0	*	*	.0	.0	*	
13-16	.0	.0	*	.1	*	*	.2	
17-19	.0	.0	.0	*	.0	*	*	
20-22	.0	.0	.0	*	*	.0	*	
23-25	.0	.0	.0	.0	*	.0	*	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	4.4	5.6	1.3	.3	.1	12.0	97.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.5	4.2	.1	.0	.0	.0	8.9	
1-2	1.3	19.2	7.5	.0	.0	.0	28.0	
3-4	.3	8.0	17.3	1.7	.0	.0	27.3	
5-6	.2	1.5	10.9	3.2	.4	.0	16.2	
7	*	.2	4.5	3.5	.9	*	9.2	
8-9	.0	.2	1.2	1.8	.8	.1	4.2	
10-11	.0	*	.4	1.7	.8	.1	2.5	
12	*	.1	.1	.5	.3	.0	1.0	
13-16	.0	*	.1	.7	.7	.1	1.6	
17-19	.0	*	.1	.2	.2	*	.5	
20-22	.0	.0	*	.1	.1	.0	.2	
23-25	.0	.0	*	*	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	*	*	
33-40	.0	.0	.0	.0	*	.1	.1	
41-48	.0	.0	.0	.0	.0	*	*	
49-60	.0	.0	.0	.0	.0	*	*	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.4	33.6	42.3	13.0	4.4	.4	100.0	5673

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.9	5.6	9.0	6.6	4.5	2.0	1.0	.4	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1983	5
6-7	*	.6	3.7	6.6	7.3	3.4	3.1	.8	2.1	.5	.2	.2	.1	*	.0	.0	.0	.0	.0	1827	7
8-9	.0	.4	1.6	3.0	4.2	2.5	2.9	.9	1.5	.6	.2	.2	.2	*	.0	.0	.0	.0	.0	1157	8
10-11	.0	.7	1.1	1.3	1.5	1.0	1.3	.6	1.0	.4	.3	.1	.2	*	*	*	*	.0	.0	809	9
12-13	.0	.0	1.2	.9	.5	.4	.4	.2	.3	.2	.1	.1	.1	.1	.0	.0	*	.0	.0	287	9
>13	.0	.0	.0	.8	.5	.3	.3	.1	.2	.1	.4	.2	.1	.1	*	.0	.0	.0	.0	186	12
INDET	1.1	.2	1.0	1.1	.8	.4	.3	.1	.2	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	344	5
TOTAL																				6193	7
PCT	2.1	7.6	17.5	20.5	19.2	9.9	9.4	3.1	5.7	2.1	1.3	.7	.6	.3	.1	*	*	.0	.0	100.0	

PERIOD: (PRIMARY) 1928-1978
(OVER-ALL) 1863-1976

AREA 0029 HAWKE BAY
40.3S 177.1E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
77/78	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	*
75/76	.1	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	7	.1
73/74	.4	.7	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	22	.2
71/72	2.5	3.7	2.2	.3	.2	.0	.0	.0	.0	.0	.0	.1	106	.9
69/70	9.9	10.3	5.9	1.0	.2	.0	.1	.0	.0	.0	.0	1.4	286	2.3
67/68	15.8	21.9	15.7	6.4	1.0	.3	.0	.1	.0	.0	.1	4.3	755	6.2
65/66	21.2	21.9	20.2	10.2	2.7	1.1	.4	.2	.0	.1	2.3	11.6	1099	9.0
63/64	23.4	18.1	21.1	23.1	9.1	3.3	.6	.6	.7	2.2	10.6	22.8	1489	12.2
61/62	14.7	12.2	18.3	21.6	16.4	8.7	2.3	2.6	2.5	5.8	19.2	22.2	1565	12.9
59/60	9.0	6.8	10.1	16.2	18.9	19.4	7.9	7.8	8.8	13.8	19.9	18.7	1606	13.1
57/58	4.1	2.7	4.1	10.1	24.2	22.9	21.7	18.3	19.2	28.0	24.0	12.4	1872	15.3
55/56	1.8	1.1	1.2	4.2	18.5	18.1	24.1	28.6	27.0	26.7	15.4	5.4	1631	13.3
53/54	.3	.1	.3	.5	9.4	16.6	21.8	22.3	19.6	15.4	6.9	.6	1016	8.3
51/52	.0	.0	.0	.1	1.6	7.2	14.1	12.4	14.2	5.2	1.2	.5	509	4.2
49/50	.0	.0	.0	.0	.6	1.8	4.4	5.0	5.4	1.1	.5	.0	168	1.4
47/48	.0	.0	.0	.0	.2	.8	1.4	.8	.6	.4	.0	.0	39	.3
45/46	.0	.0	.0	.0	.0	.0	.7	.9	1.2	1.2	.0	.0	37	.3
43/44	.0	.0	.0	.0	.0	.0	.0	.4	.8	.0	.0	.0	10	.1
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	1297	1098	1205	938	1188	790	950	847	904	903	1099	995	12219	100.0
MEAN	64.0	65.0	64.0	62.1	58.6	56.8	55.0	54.9	54.8	56.4	58.8	61.5	59.3	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1012	1011	1013	1010	1012	1009	1013	1011	1012	1320
FEB	1015	1015	1016	1012	1015	1013	1014	1011	1014	1152
MAR	1017	1016	1016	1017	1017	1017	1017	1017	1017	1304
APR	1015	1016	1015	1015	1015	1016	1013	1015	1015	1118
MAY	1015	1016	1012	1014	1014	1016	1013	1015	1014	1409
JUN	1015	1014	1013	1016	1014	1012	1012	1016	1014	1017
JUL	1014	1013	1011	1014	1014	1010	1013	1011	1013	1118
AUG	1014	1011	1014	1014	1013	1014	1012	1013	1013	1048
SEP	1013	1012	1013	1011	1013	1009	1013	1010	1012	1135
OCT	1014	1009	1013	1014	1014	1016	1015	1014	1014	1218
NOV	1012	1012	1011	1013	1013	1013	1011	1012	1012	1199
DEC	1012	1010	1011	1013	1012	1013	1012	1013	1012	1189
ANN	1014	1013	1013	1014	1014	1013	1013	1013	1014	14235
OBS	3207	819	1902	1560	2666	851	1895	1335		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	985	992	996	1007	1012	1018	1023	1027	1034
FEB	981	991	1000	1009	1016	1020	1026	1029	1034
MAR	992	997	1003	1012	1017	1022	1028	1032	1037
APR	989	992	996	1008	1016	1022	1028	1032	1040
MAY	983	990	997	1008	1015	1022	1028	1032	1035
JUN	978	986	995	1008	1015	1022	1031	1034	1037
JUL	980	985	995	1005	1013	1022	1030	1037	1041
AUG	980	986	994	1006	1013	1022	1030	1034	1039
SEP	979	986	995	1005	1013	1020	1028	1031	1034
OCT	978	991	997	1007	1015	1021	1029	1033	1036
NOV	984	991	998	1007	1012	1018	1024	1030	1034
DEC	985	993	999	1008	1013	1018	1023	1026	1029

JANUARY

PERIOD: (PRIMARY) 1931-1970
(OVER-ALL) 1864-1970

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	9.6	8.7	1.4	.0	.0	.0	.0	19.7	3.4	.0	10.6	.0	1.9	.0		64.4
NE	5.3	1.7	.8	.0	.0	.0	.0	7.5	.9	.0	3.3	.0	6.7	3.3		79.2
E	5.3	1.8	6.1	.0	.0	.0	.0	13.2	.0	1.8	8.8	.0	.0	.0		76.3
SE	11.4	2.3	.0	.0	.0	.0	.0	13.6	.0	6.8	4.5	.0	.0	.0		75.0
S	1.8	5.1	4.0	.0	.0	.0	.0	10.8	.0	.0	.7	.0	.0	.0		88.4
SW	1.8	5.8	.8	.0	.0	.0	.0	8.4	.8	.0	1.0	.6	.6	.0		88.7
W	3.0	3.0	.7	.0	.0	.0	.0	6.7	5.2	.0	1.7	1.0	.0	.0		85.3
NW	5.7	1.9	.5	.0	.0	.0	.0	8.1	6.7	.0	.0	1.9	1.9	.0		81.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	3.8	.0	.0	.0	.0	.0	.0	3.8	.0	.0	11.5	.0	3.8	.0		80.8
TOT PCT	3.9	4.3	1.4	.0	.0	.0	.0	9.6	2.1	.4	3.0	.5	1.1	.2		83.1
TOT OBS:	562															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.5	2.1	1.4	.0	.0	.0	.0	8.9	1.4	.0	2.1	.0	.0		.7	87.0
06&09	4.0	4.0	1.7	.0	.0	.0	.0	9.7	2.3	.0	4.0	.6	2.3		.0	81.1
12&15	3.5	5.2	2.6	.0	.0	.0	.0	11.3	3.5	.9	1.7	.9	.0		.0	81.7
18&21	2.1	5.5	.7	.0	.0	.0	.0	8.3	2.1	.7	3.4	.7	1.4		.0	83.4
TOT PCT	3.8	4.1	1.5	.0	.0	.0	.0	9.5	2.7	.3	2.9	.5	1.0		.2	83.3
TOT OBS:	581															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.2	4.9	2.6	1.1	.1	.3		9.1	13.4	8.6	.0	12.7	6.4	10.8	33.3	4.7	5.4
NE	.4	1.9	3.0	.4	*	*		6.0	13.3	8.0	.0	6.4	5.9	4.2	.0	4.9	7.1
E	.5	1.8	2.5	.7	.3	.0		5.8	13.6	4.6	.0	3.4	4.8	6.6	.0	10.2	7.7
SE	.5	2.6	1.0	.2	*	.0		4.4	9.5	2.4	.0	4.5	4.3	3.4	11.1	6.1	8.9
S	1.0	4.3	5.3	1.4	.4	.0		12.6	14.0	17.1	25.0	13.8	14.4	9.0	.0	9.8	8.9
SW	1.4	9.1	14.4	5.3	.0	.0		31.1	15.0	26.3	46.4	29.6	41.5	27.6	25.0	39.4	27.4
W	2.5	5.5	6.8	2.6	.7	.0		17.9	14.2	18.4	.0	16.0	11.7	23.6	19.4	16.7	18.5
NW	.5	4.3	3.4	.5	.2	.0		9.0	12.7	10.8	14.3	9.1	9.0	10.0	11.1	9.1	8.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.2							4.2	.0	3.9	14.3	4.5	2.1	4.8	.0	3.3	7.1
TOT OBS	75	229	259	85	18	2	668		13.3	159	7	156	47	125	9	123	42
TOT PCT	11.2	34.3	38.8	12.7	2.7	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.3	3.9	2.4	.2	.3		9.1	13.4	8.3	11.2	12.3	4.8
NE	1.3	2.6	1.8	.2	*		6.0	13.3	7.7	6.3	3.9	5.5
E	1.6	2.1	1.8	.1	.1		5.8	13.6	4.4	3.7	6.2	9.5
SE	2.2	1.2	.9	.0	*		4.4	9.5	2.3	4.4	3.9	6.8
S	2.1	6.0	3.4	1.0	.1		12.6	14.0	17.5	13.9	8.4	9.5
SW	5.1	13.4	10.6	1.6	.4		31.1	15.0	27.1	32.4	27.4	36.4
W	4.7	5.6	5.5	1.9	.1		17.9	14.2	17.6	15.0	23.3	17.1
NW	2.5	3.9	2.0	.4	.1		9.0	12.7	11.0	9.1	10.1	6.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.2						4.2	.0	4.2	3.9	4.5	4.2
TOT OBS	174	259	190	37	8	668		13.3	166	203	134	165
TOT PCT	26.0	38.8	28.4	5.5	1.2		100.0		100.0	100.0	100.0	100.0

JANUARY

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1868-1978

AREA 0030 SOUTH ISLAND (NZ)
41.8S 169.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.2	9.6	29.5	39.8	13.3	3.6	.0	13.6	100.0	166
06&09	3.9	8.4	35.0	34.5	14.8	2.5	1.0	13.6	100.0	203
12&15	4.5	3.7	32.1	44.0	12.7	3.0	.0	13.8	100.0	134
18&21	4.2	5.5	40.0	38.8	9.7	1.8	.0	12.2	100.0	165
TOT	28	47	229	259	85	18	2	13.3		668
PCT	4.2	7.0	34.3	38.8	12.7	2.7	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.5	.7	2.4	4.7		6.9
NE	.0	1.5	1.7	1.9		5.0
E	2.7	.7	1.3	1.0		3.6
SE	1.1	.1	1.9	1.1		3.2
S	3.0	2.0	5.5	2.6		4.9
SW	8.8	6.8	10.3	4.7		4.4
W	3.1	4.8	5.9	4.9		5.1
NW	.7	1.7	5.1	2.9		5.8
VAR	.0	.0	.0	.0		.0
CALM	1.9	1.3	1.3	.8		3.9
TOT OBS	85	74	134	85	378	4.9
TOT PCT	22.5	19.6	35.4	22.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	1.1	.0	.5	2.1	1.1	.9	.2	.0	.0	.0	2.4	
NE	.1	.0	.1	.4	.9	.1	.1	.0	.0	.0	3.5	
E	.2	.0	.0	.3	.0	.3	.5	.3	.0	.0	4.2	
SE	.3	.3	.3	.3	.3	.0	.0	.0	.0	.0	2.8	
S	.2	.0	.0	1.0	2.8	1.5	.5	.0	.0	.0	7.1	
SW	.1	.3	.3	.9	4.0	2.4	1.4	.3	.5	.0	20.3	
W	.2	.0	.7	1.6	3.6	1.0	.5	.0	.0	.0	10.3	
NW	.0	.0	.1	1.1	2.1	2.2	.3	.0	.0	.3	3.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.5	1.1	.0	.0	.0	.0	.0	3.7	
TOT OBS	8	2	7	31	60	32	13	2	2	1	220	378
TOT PCT	2.1	.5	1.9	8.2	15.9	8.5	3.4	.5	.5	.3	58.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >5000	.8	.8	.8	.8	.8	.8	.8	.8
* OR >5000	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
* OR >3500	4.4	4.7	4.7	4.7	4.7	4.7	4.7	4.7
* OR >2000	12.3	12.5	13.1	13.1	13.1	13.1	13.1	13.1
* OR >1000	25.3	27.4	29.0	29.0	29.0	29.0	29.0	29.0
* OR >400	29.0	34.2	36.6	36.6	37.1	37.1	37.1	37.1
* OR >200	29.8	35.5	38.6	38.6	38.9	38.9	38.9	38.9
* OR >100	29.8	36.0	39.2	39.2	39.4	39.4	39.4	39.4
* OR > 0	29.8	36.0	39.7	40.2	41.0	41.3	41.3	41.3
TOTAL	114	138	152	154	157	158	158	158

TOTAL NUMBER OF OBS: 383 PCT FREQ NH <5/8: 58.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.7	13.9	11.7	10.0	11.4	6.5	7.5	10.9	15.9	1.5	402

PERIOD: (PRIMARY) 1931-1970
(OVER-ALL) 1860-1970

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.2E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.5	
	TOT %	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.5	
1/2<1	PCP	.6	.1	.3	.0	.0	.0	.2	.0	.0	.2	1.4	
	NO PCP	.4	.0	.0	.0	.0	.2	.2	.0	.0	.0	.7	
	TOT %	1.0	.1	.3	.0	.0	.2	.4	.0	.0	.2	2.1	
1<2	PCP	.2	.0	.0	.0	.0	*	.1	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	*	.1	.0	.0	.2	.4	
	TOT %	.2	.0	.0	.0	.0	.1	.3	.0	.0	.2	.7	
2<5	PCP	.6	*	.0	.2	.3	*	.0	.4	.0	.0	1.6	
	NO PCP	.6	.1	.0	.0	.2	.0	.2	.4	.0	.0	1.4	
	TOT %	1.2	.1	.0	.2	.5	*	.2	.8	.0	.0	3.0	
5<10	PCP	.3	.2	.3	.1	1.0	1.9	.9	.2	.0	.0	4.8	
	NO PCP	2.4	2.0	.9	1.1	2.8	7.6	3.4	2.7	.0	.5	23.0	
	TOT %	2.6	2.1	1.2	1.2	3.6	9.5	4.3	2.9	.0	.5	27.8	
10+	PCP	.1	*	.1	.1	.2	.7	.0	.2	.0	.0	1.4	
	NO PCP	3.7	2.7	3.5	2.3	8.3	21.8	12.7	5.4	.0	3.7	64.3	
	TOT %	3.9	2.8	3.6	2.4	8.5	22.5	13.7	5.7	.0	3.7	65.8	
	TOT OBS												561
	TOT PCT	9.3	5.2	5.1	3.7	12.5	32.3	17.9	9.4	.0	4.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.4	.0	.0	.0	.0	.0	.2	.0	.0		.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.5	.0	.2	.0	.0	.2	.2	.0	.0		1.1	
	11-21	.4	.1	.1	.0	.0	.0	.2	.0	.0		.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	1.0	.1	.3	.0	.0	.2	.4	.0	.0	.2	2.1	
1<2	0-3	.0	.0	.0	.0	.0	*	.1	.0	.0	.2	.4	
	4-10	.0	.0	.0	.0	.0	*	.1	.0	.0		.2	
	11-21	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.0	.0	.0	.0	.1	.3	.0	.0	.2	.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.0	.2	.0	.0	.0	.0		.4	
	11-21	.6	*	.0	.2	.2	.0	.0	.2	.0		1.2	
	22+	.4	.1	.0	.0	.1	*	.2	.5	.0		1.4	
	TOT %	1.2	.1	.0	.2	.5	*	.2	.8	.0	.0	3.0	
5<10	0-3	.3	.1	.3	.1	.2	.4	.7	.0	.0	.5	2.5	
	4-10	1.4	.5	.2	.7	.6	1.0	1.0	1.8	.0		7.3	
	11-21	.4	1.5	.7	.3	1.5	4.8	1.5	.9	.0		11.5	
	22+	.5	.0	.0	.1	1.3	3.3	1.0	.1	.0		6.4	
	TOT %	2.6	2.1	1.2	1.2	3.6	9.5	4.3	2.8	.0	.5	27.7	
10+	0-3	.0	.2	.2	.4	.7	1.2	2.1	.6	.0	3.7	9.1	
	4-10	2.2	1.5	1.5	1.6	3.3	7.6	3.6	2.6	.0		24.0	
	11-21	1.1	1.1	1.3	.2	3.7	10.7	4.8	2.2	.0		25.0	
	22+	.6	.0	.7	.2	.8	3.0	2.3	.3	.0		7.8	
	TOT %	3.9	2.8	3.6	2.4	8.4	22.5	12.9	5.7	.0	3.7	65.9	
	TOT OBS												563
	TOT PCT	9.2	5.2	5.1	3.7	12.5	32.3	18.1	9.3	.0	4.6	100.0	

JANUARY

PERIOD: (PRIMARY) 1931-1970
(OVER-ALL) 1868-1970

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.2E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.7	.0	.9	5.2	19.0	8.6	3.4	.9	.0	.9	40.5	59.5	116
06&09	2.5	.0	3.3	8.3	13.2	7.4	4.1	.8	.8	.0	40.5	59.5	121
12&15	4.6	.0	1.5	4.6	16.9	12.3	1.5	.0	.0	.0	41.5	58.5	65
18&21	.0	2.2	1.1	13.3	14.4	5.6	3.3	.0	1.1	.0	41.1	58.9	90
TOT	8	2	7	31	62	32	13	2	2	1	160	232	392
PCT	2.0	.5	1.8	7.9	15.8	8.2	3.3	.5	.5	.3	40.8	59.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	4.1	.0	2.8	18.6	74.5	145
06&09	1.7	1.7	.0	4.0	29.0	63.6	176
12&15	.0	.0	3.4	4.3	27.6	64.7	116
18&21	.0	4.1	.0	.7	37.2	60.0	145
TOT	3	12	4	17	164	382	582
PCT	.5	2.1	.7	2.9	28.2	65.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.9	3.6	10.8	30.6	58.6	111
06&09	2.5	6.7	16.7	25.0	58.3	120
12&15	4.7	6.3	17.2	29.7	53.1	64
18&21	.0	3.4	17.0	25.0	58.0	88
TOT	7	19	58	103	220	383
PCT	1.8	5.0	15.1	27.4	57.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.0	.2	.0	.0	1	.2
70/74	.0	.0	.0	.0	1.4	2.3	1.4	.5	24	5.5
65/69	.0	.0	.0	.0	1.6	4.1	5.5	9.8	92	21.1
60/64	.0	.0	.0	.5	5.0	14.4	9.8	13.3	188	43.0
55/59	.0	.0	.0	.0	3.7	9.2	7.3	6.2	115	26.3
50/54	.0	.3	.0	.0	.7	1.4	1.6	.7	17	3.9
TOTAL	0	0	0	2	52	138	112	133	437	100.0
PCT	.0	.0	.0	.5	11.9	31.6	25.6	30.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
.9	.5	.0	.0	.9	.9	.9	.7	.0	.7
2.5	1.8	1.5	2.1	2.1	4.4	2.3	1.6	.0	2.7
2.9	3.0	2.5	1.5	5.9	13.8	7.3	4.9	.0	1.1
1.9	.4	1.9	.9	2.6	10.4	6.6	1.4	.0	.5
.0	.0	.0	.2	.6	1.7	1.3	.1	.0	.0
8.2	5.7	5.8	4.7	12.1	31.2	18.4	8.8	.0	5.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	76	73	70	63	54	48	48	62.6	169
06&09	78	74	72	62	55	53	53	62.7	202
12&15	68	67	67	61	54	52	52	60.3	135
18&21	72	71	67	60	52	52	51	60.3	166
TOT	78	72	70	61	54	52	48	61.6	672

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	.0	19.1	36.5	20.9	23.5	80	115
06&09	.0	.8	13.5	32.3	24.8	28.6	81	133
12&15	.0	1.1	3.4	21.3	28.1	46.1	87	89
18&21	.0	.9	9.9	34.2	27.9	27.0	82	111
TOT	0	3	54	142	113	136	82	448

JANUARY

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1868-1978

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.2E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	% FOG	WD FOG
14/16	.0	.0	.0	.4	.4	.0	.0	.0	4	.0	.8
11/13	.0	.0	.0	.0	.2	.0	.0	.0	1	.0	.2
9/10	.0	.0	.0	.2	.0	.4	.4	.2	6	.0	1.3
7/8	.0	.0	.0	.4	.6	1.1	.5	.0	13	.0	2.8
6	.0	.0	.4	.6	.6	.6	.0	.0	11	.0	2.3
5	.0	.0	.6	1.1	1.3	.6	.0	.0	17	.0	3.6
4	.0	.0	1.1	.6	.8	.6	.0	.0	15	.0	3.2
3	.2	.6	1.3	.6	.8	.8	.0	.0	21	.2	4.2
2	.0	1.3	1.9	3.2	1.9	1.1	.0	.0	44	.2	9.1
1	.0	.6	1.3	4.4	3.6	1.1	.0	.0	52	.4	10.4
0	.4	1.3	3.4	8.5	2.8	.6	.0	.0	80	.6	16.3
-1	.2	1.5	3.8	5.5	2.5	.2	.0	.0	65	.2	13.6
-2	.6	1.5	3.4	4.0	1.5	.2	.0	.0	53	.4	10.8
-3	.0	1.5	2.5	3.2	1.3	.0	.0	.0	40	.2	8.3
-4	.8	1.3	.6	1.9	.2	.0	.0	.0	23	.0	4.9
-5	.2	.6	.8	.8	.0	.0	.0	.0	12	.0	2.5
-6	.4	.4	.6	.2	.0	.0	.0	.0	8	.0	1.7
-7/-8	.0	.4	.4	.4	.0	.0	.0	.0	6	.0	1.3
-9/-10	.0	.2	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	14		105		88		5			12	460
		93		171		35		1	472		
PCT	3.0	11.2	22.2	36.2	18.6	7.4	1.1	.2	100.0	2.5	97.5

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.7	.5	.0	.0	.0	2.2
3-4	.0	1.2	1.4	.2	.0	.0	2.9
5-6	.0	.0	.5	.0	.0	.0	.5
7	.0	.0	.0	.7	.0	.0	.7
8-9	.0	.0	.2	.0	.2	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.2	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.0	2.6	.9	.2	.2	7.0

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.3	.9	.2	.0	.0	.0	1.4
3-4	.0	.7	.4	.0	.0	.0	1.1
5-6	.0	.0	1.1	.0	.0	.0	1.1
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.1	.0	.1	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.1	.1
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.0	2.2	.0	.1	.1	4.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.3	1.6	.0	.0	.0	.0	2.0
3-4	.0	.3	.3	.0	.0	.0	.7
5-6	.0	.0	.9	.0	.0	.0	.9
7	.0	.0	.2	.0	.2	.0	.5
8-9	.0	.0	.0	.0	.3	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.0	1.5	.0	.6	.0	4.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.7	.0	.0	.0	.0	1.1
1-2	.3	1.1	.4	.0	.0	.0	1.8
3-4	.0	.0	.3	.0	.0	.0	.3
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.3	.3	.1	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	1.8	1.4	.3	.1	.0	4.3

PERIOD: (OVER-ALL) 1968-1978 JANUARY AREA 0030 SOUTH ISLAND (NW)

TABLE 18 (CONT) 41.8S 169.2E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.9	.0	.0	.0	.0	1.1
1-2	.3	3.0	1.1	.0	.0	.0	4.5
3-4	.0	1.3	.6	.0	.0	.0	1.9
5-6	.0	.0	1.5	.3	.3	.0	2.1
7	.0	.0	.7	.8	.0	.0	1.5
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.3	.0	.0	.0	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.3	.0	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	5.2	4.2	1.4	.3	.0	12.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.3	.3	.0	.0	.0	.0	1.6
1-2	.7	6.4	3.1	.0	.0	.0	10.2
3-4	.0	2.3	4.7	.3	.0	.0	7.3
5-6	.0	.0	2.9	.3	.0	.0	3.2
7	.0	.3	2.8	2.1	.3	.0	5.6
8-9	.0	.0	1.8	1.0	.0	.0	2.8
10-11	.0	.0	.3	.7	.0	.0	1.1
12	.0	.0	.3	.0	.0	.0	.3
13-16	.0	.0	.1	.3	.0	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.0	9.3	16.0	4.8	.3	.0	32.5

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.6	1.0	.0	.0	.0	.0	3.6
1-2	.9	3.0	.9	.0	.0	.0	4.8
3-4	.3	.7	1.1	.0	.0	.0	2.0
5-6	.0	.7	2.2	.7	.0	.0	3.5
7	.0	.2	1.1	.3	.0	.0	1.7
8-9	.0	.0	.5	1.4	.0	.0	1.9
10-11	.0	.0	.3	.2	.0	.0	.6
12	.0	.0	.0	.7	.0	.0	.7
13-16	.0	.0	.2	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.9	5.5	6.4	3.3	.0	.0	19.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	.3	.0	.0	.0	.0	1.1	
1-2	.3	3.3	.0	.0	.0	.0	3.6	
3-4	.0	.3	1.7	.1	.0	.0	2.1	
5-6	.0	.0	1.4	.0	.0	.0	1.4	
7	.0	.1	.0	.3	.0	.0	.4	
8-9	.0	.0	.0	.7	.0	.0	.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.3	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	4.0	3.1	1.1	.3	.0	9.6	93.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	12.4	3.6	.0	.0	.0	.0	16.0	
1-2	3.3	20.8	6.2	.0	.0	.0	30.3	
3-4	.3	6.6	10.4	.7	.0	.0	18.2	
5-6	.0	.7	10.7	1.3	.3	.0	13.0	
7	.0	.7	5.5	4.6	.7	.0	11.4	
8-9	.0	.0	2.6	3.3	.7	.0	6.5	
10-11	.0	.0	.7	1.0	.0	.0	1.6	
12	.3	.0	.3	.7	.0	.0	1.3	
13-16	.0	.0	.3	.3	.3	.0	1.0	
17-19	.0	.0	.3	.0	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.3	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	16.3	32.6	37.1	11.7	2.0	.3	100.0	307

PERIOD: (OVER-ALL) 1949-1978 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	7.6	6.4	4.9	1.7	1.5	.9	.6	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	86	4
6-7	.0	1.7	2.9	4.7	5.2	1.2	2.6	.9	2.6	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	78	7
8-9	.0	.3	2.3	2.6	3.5	2.3	3.2	.9	1.5	.3	.3	.0	.0	.3	.0	.0	.0	.0	.0	65	8
10-11	.0	.9	.9	.9	2.9	1.2	2.3	.6	2.6	1.2	.6	.0	.0	.6	.0	.0	.0	.0	.0	50	11
12-13	.0	.0	1.5	.6	1.2	.9	.6	.3	.9	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	21	8
>13	.0	.0	.0	.6	1.2	.3	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	8
INDET	2.9	.6	1.2	1.5	2.0	1.7	.9	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	43	5
TOTAL	12	38	52	54	61	31	37	12	29	10	5	0	0	3	0	0	0	0	0	344	7
PCT	3.5	11.0	15.1	15.7	17.7	9.0	10.8	3.5	8.4	2.9	1.5	.0	.0	.9	.0	.0	.0	.0	.0	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1933-1978
(OVER-ALL) 1858-1978

AREA 0090 SOUTH ISLAND (NW)
41.8S 169.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	8.9	1.6	4.9	.0	.0	.0	.0	12.1	10.1	1.6	12.1	.0	2.8		.0	61.1
NE	17.4	.0	3.3	.0	.0	.0	.0	19.0	4.2	.0	9.5	1.7	.0		.0	63.6
E	15.9	2.2	4.4	.0	.0	.0	.0	20.3	.0	2.2	.0	.0	.0		.0	78.6
SE	12.0	.0	.9	.0	.0	.0	.0	13.0	.9	7.4	.0	.0	.0		.0	80.6
S	.0	1.2	1.8	.0	.0	.0	.0	3.0	2.1	1.2	3.3	.9	.0		.0	89.4
SW	.7	1.0	2.4	.0	.0	.0	.0	3.5	2.4	.0	1.3	.1	1.1		.1	91.5
W	1.8	5.8	2.4	.0	.0	.0	.0	10.1	3.0	.0	7.3	.0	.0		.9	78.7
NW	7.8	3.1	10.4	.0	.0	.0	.0	21.2	2.6	.0	5.7	.0	4.7		.0	65.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	7.8	.0	3.9	.0	.0	.0	.0	9.8	.0	.0	3.9	.0	2.0		.0	84.3
TOT PCT	5.8	1.7	3.5	.0	.0	.0	.0	10.0	3.1	.8	4.6	.3	1.1		.2	80.1
TOT OBS:	637															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.6	1.3	.7	.0	.0	.0	.0	6.0	6.6	.0	2.6	.7	.7		.0	83.4
06&09	5.5	1.5	2.5	.0	.0	.0	.0	8.5	1.5	1.0	6.0	.5	2.0		.0	80.4
12&15	5.8	1.4	5.1	.0	.0	.0	.0	10.9	2.0	2.2	2.9	.0	.7		.7	80.4
18&21	6.9	2.3	5.2	.0	.0	.0	.0	13.9	1.7	.0	5.2	.0	.6		.0	78.6
TOT PCT	5.7	1.7	3.3	.0	.0	.0	.0	9.8	3.0	.8	4.4	.3	1.1		.2	80.6
TOT OBS:	661															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.4	5.2	2.4	1.5	.0	.0		10.6	11.4	15.4	.0	10.4	12.9	9.4	15.0	5.9	12.5
NE	.5	3.7	3.8	1.2	.4	.1		9.7	14.1	10.2	.0	8.6	6.1	10.6	45.0	10.6	8.5
E	.8	3.8	2.2	.6	.0	.0		7.4	10.7	7.7	14.3	2.8	5.7	7.3	.0	12.3	9.0
SE	.4	2.2	1.3	.3	.0	.0		4.2	9.8	2.4	.0	.9	3.8	6.6	30.0	6.4	4.5
S	1.0	6.2	4.5	1.6	.3	.0		13.5	12.4	13.3	28.6	14.3	16.3	9.4	10.0	15.8	11.4
SW	3.1	7.5	11.7	3.8	.2	.0		26.2	13.4	24.6	42.9	31.8	23.9	26.0	.0	23.3	28.4
W	1.8	5.1	4.8	1.9	.2	.0		13.8	12.4	12.7	.0	15.9	14.0	13.9	.0	12.7	17.0
NW	1.0	2.6	2.3	1.1	.2	.0		7.2	12.9	8.4	14.3	9.0	8.3	5.5	.0	5.0	8.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.3							7.3	.0	5.3	.0	6.3	9.1	11.3	.0	8.1	2.3
TOT OBS	132	277	251	92	9	1	762		11.6	169	7	159	66	151	5	161	44
TOT PCT	17.3	36.4	32.9	12.1	1.2	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.8	4.2	1.6	1.0	.0		10.6	11.4	14.8	11.1	9.6	7.3
NE	3.1	3.6	2.1	.4	.5		9.7	14.1	9.8	7.9	11.7	10.0
E	1.9	4.1	1.2	.1	.0		7.4	10.7	8.0	3.7	7.1	11.3
SE	1.4	2.2	.6	.0	.0		4.2	9.8	2.3	1.8	7.4	6.0
S	3.5	6.5	2.9	.6	.0		13.5	12.4	13.9	14.9	9.5	14.9
SW	5.8	10.5	8.3	1.5	.0		26.2	13.4	25.3	29.4	25.2	24.4
W	3.1	6.8	3.4	.5	.0		13.8	12.4	12.2	15.3	13.5	13.7
NW	2.3	2.7	1.8	.3	.1		7.2	12.9	8.7	8.8	5.3	5.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	7.3						7.3	.0	5.1	7.1	10.9	6.8
TOT OBS	246	310	167	34	5	762		11.6	176	225	156	205
TOT PCT	32.3	40.7	21.9	4.5	.7		100.0		100.0	100.0	100.0	100.0

FEBRUARY

PERIOD: (PRIMARY) 1933-1978
(OVER-ALL) 1858-1978

AREA 0030 SOUTH ISLAND (NZ)
41.8S 169.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	5.1	13.6	33.5	28.4	17.0	2.3	.0	12.6	100.0	176
06&09	7.1	8.4	31.4	38.7	12.9	.9	.4	12.3	100.0	225
12&15	10.9	7.7	39.7	30.1	9.6	1.9	.0	11.1	100.0	156
18&21	9.8	10.2	41.5	32.7	5.8	.0	.0	10.3	100.0	205
TOT	56	76	277	251	92	9	1	11.6		762
PCT	7.3	10.0	36.4	32.9	12.1	1.2	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.5	.3	2.6	4.4		6.1
NE	.6	.6	3.0	5.9		6.8
E	2.0	.6	1.6	2.4		5.1
SE	1.2	1.0	1.7	.9		4.1
S	4.1	3.1	4.6	1.9		4.2
SW	11.1	6.0	6.7	4.9		3.8
W	2.0	2.3	4.6	2.4		5.2
NW	1.2	1.0	2.3	3.4		5.6
VAR	.0	.0	.0	.0		.0
CALM	3.7	1.6	1.6	2.1		3.7
TOT OBS	118	72	123	117	430	4.7
TOT PCT	27.4	16.7	28.6	27.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.6	.4	.5	1.9	1.7	1.2	.2	.0	.0	.0	2.5	
NE	.5	.0	.5	2.4	2.5	.9	.0	.1	.0	.0	3.1	
E	.0	.2	.0	1.0	.9	.5	.2	.2	.2	.0	3.6	
SE	.0	.0	.0	.8	.1	.2	.1	.0	.0	.0	3.1	
S	.0	.0	.0	.4	2.0	1.5	1.1	.0	.0	.0	8.0	
SW	.2	.0	.5	1.9	3.7	3.1	.3	.0	.0	.0	19.0	
W	.2	.0	.2	.8	2.3	1.6	.3	.0	.0	.0	5.8	
NW	.1	.3	.2	1.6	1.9	.3	.0	.0	.0	.2	3.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.2	.2	.0	.5	.9	.5	.7	.0	.0	.0	5.0	
TOT OBS	8	5	8	48	69	42	13	1	1	1	234	430
TOT PCT	1.9	1.2	1.9	11.2	16.0	9.8	3.0	.2	.2	.2	54.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.2	.5	.5	.5	.5	.5	.5	.5
= OR >4000	.5	.7	.7	.7	.7	.7	.7	.7
= OR >3500	3.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6
= OR >2000	11.6	13.6	13.8	13.8	13.8	13.8	13.8	13.8
= OR >1000	22.9	28.8	30.2	30.2	30.2	30.2	30.2	30.2
= OR >400	26.5	37.4	40.4	40.6	40.6	40.8	41.0	41.0
= OR >300	27.0	38.1	41.5	42.4	42.6	42.9	43.1	43.1
= OR >150	27.2	38.5	42.2	43.3	43.5	43.8	44.2	44.2
= OR > 0	27.2	38.8	42.6	43.8	44.0	44.9	45.8	46.0
TOTAL	120	171	188	193	194	198	202	203

TOTAL NUMBER OF OBS: 441 PCT FREQ NH <5/8: 54.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
12.9	13.3	11.1	10.7	6.8	5.9	6.1	10.0	22.0	1.7	459

PERIOD: (PRIMARY) 1933-1970
(OVER-ALL) 1858-1970

AREA 0030 SOUTH ISLAND (NW)
41.0S 169.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.3	.0	.2	.5	
	NO PCP	.4	.2	.0	.0	.0	.2	.2	.2	.0	.3	1.4	
	TOT %	.4	.2	.0	.0	.0	.2	.2	.5	.0	.5	1.9	
1/2<1	PCP	.2	.3	.0	.0	.0	.0	.2	.3	.0	.0	.9	
	NO PCP	.3	.2	.0	.0	.2	.0	.3	.0	.0	.0	.9	
	TOT %	.5	.5	.0	.0	.2	.0	.5	.3	.0	.0	1.9	
1<2	PCP	.1	.3	.2	.0	.1	.1	.1	*	.0	.0	.9	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.3	.2	.0	.1	.1	.1	*	.0	.0	.9	
2<5	PCP	.4	.3	.2	.1	.0	.2	.0	.5	.0	.0	1.7	
	NO PCP	.4	.8	.0	.0	.1	.2	.0	.4	.0	.0	1.9	
	TOT %	.9	1.1	.2	.1	.1	.4	.0	.9	.0	.0	3.6	
5<10	PCP	.5	.7	1.1	.4	.2	.5	.6	.3	.0	.6	4.9	
	NO PCP	3.1	1.6	1.6	.6	2.4	7.6	4.0	1.2	.0	.9	22.9	
	TOT %	3.4	2.3	2.6	1.0	2.5	8.2	4.5	1.4	.0	1.6	27.7	
10+	PCP	.0	.2	.2	*	.1	.2	.4	.2	.0	.0	1.3	
	NO PCP	4.3	4.9	4.1	3.1	9.9	19.0	7.1	4.2	.0	6.0	62.7	
	TOT %	4.3	5.1	4.3	3.1	10.0	19.2	7.6	4.3	.0	6.0	63.9	
	TOT OBS												638
	TOT PCT	9.7	9.5	7.3	4.2	12.9	28.0	12.9	7.6	.0	8.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	
	4-10	.4	*	.0	.0	.0	.0	.2	.2	.0		.8	
	11-21	.0	.2	.0	.0	.0	.0	.0	.2	.0		.3	
	22+	.0	.0	.0	.0	.0	.2	.0	.2	.0		.3	
	TOT %	.4	.2	.0	.0	.0	.2	.2	.5	.0	.5	1.9	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.2	.5	.0	.0	.0	.0	.3	.0	.0		.9	
	22+	.2	.0	.0	.0	.2	.0	.2	.3	.0		.8	
	TOT %	.5	.5	.0	.0	.2	.0	.5	.3	.0	.0	1.9	
1<2	0-3	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.2	
	4-10	.0	.0	.2	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.1	.2	.0	.0	.0	*	.1	*	.0		.5	
	TOT %	.1	.3	.2	.0	.1	.1	.1	*	.0	.0	.9	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.4	.4	.0	.0	.1	.2	.0	.3	.0		1.4	
	11-21	.1	.2	.2	.1	.0	.0	.0	.4	.0		.9	
	22+	.3	.5	.0	.0	.0	.2	.0	.2	.0		1.3	
	TOT %	.8	1.1	.2	.1	.1	.4	.0	.9	.0	.0	3.6	
5<10	0-3	.5	.2	.5	.1	.1	1.0	.4	.1	.0	1.6	4.4	
	4-10	1.0	.3	1.0	.4	1.8	1.7	1.7	.4	.0		8.2	
	11-21	1.5	1.7	1.0	.6	.6	3.9	1.3	.4	.0		11.1	
	22+	.5	.2	.2	.0	.1	1.6	1.1	.5	.0		4.1	
	TOT %	3.5	2.3	2.6	1.0	2.5	8.2	4.5	1.4	.0	1.6	27.7	
10+	0-3	.7	.1	.5	.4	.9	2.3	.8	.9	.0	6.0	12.5	
	4-10	2.7	3.0	2.3	2.0	3.7	6.0	2.7	1.7	.0		24.1	
	11-21	.8	1.5	1.1	.5	3.6	8.3	3.1	1.5	.0		20.4	
	22+	.2	.5	.4	.2	1.8	2.7	1.0	.2	.0		6.9	
	TOT %	4.3	5.1	4.3	3.1	10.0	19.2	7.6	4.3	.0	6.0	63.9	
	TOT OBS												638
	TOT PCT	9.7	9.5	7.3	4.2	12.9	28.0	12.9	7.6	.0	8.0	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1933-1978
(OVER-ALL) 1858-1978

AREA 0030 SOUTH ISLAND (NZ)
41.8S 169.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.7	.8	.8	14.0	14.0	7.4	2.5	.8	.0	.0	42.1	57.9	121
06&09	.8	.8	2.3	7.8	17.2	7.8	4.7	.0	.0	.8	42.2	57.8	128
12&15	2.2	2.2	1.1	5.6	9.0	14.6	1.1	.0	1.1	.0	37.1	62.9	89
18&21	2.6	.9	3.5	14.0	21.9	11.4	2.6	.0	.0	.0	57.0	43.0	114
TOT	8	5	9	48	72	45	13	1	1	1	203	240	452
PCT	1.8	1.1	2.0	10.6	15.9	10.0	2.9	.2	.2	.2	44.9	55.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.3	.7	.0	.7	23.7	73.7	152
06&09	1.5	3.0	1.0	5.0	27.5	62.0	200
12&15	2.9	.7	.7	3.6	24.5	67.4	138
18&21	1.7	2.3	1.7	4.0	35.3	54.9	173
TOT	12	12	6	23	186	424	663
PCT	1.8	1.8	.9	3.5	28.1	64.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.7	3.4	18.6	24.6	56.8	118
06&09	.8	5.6	13.6	29.6	56.8	125
12&15	2.3	5.7	13.6	23.9	62.5	88
18&21	2.7	8.2	23.6	36.4	40.0	110
TOT	8	25	77	127	237	441
PCT	1.8	5.7	17.5	28.8	53.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.2	.0	.0	.2	.4	.4	1.0	.6	15	3.1
65/69	.0	.0	.0	.4	1.9	3.3	7.5	7.5	100	20.9
60/64	.0	.0	.0	.4	4.6	10.2	15.4	21.1	255	53.2
55/59	.0	.0	.0	.0	2.9	5.0	4.0	8.1	93	19.4
50/54	.0	.0	.0	.0	1.9	.4	.4	.6	16	3.3
TOTAL	1	0	0	7	60	93	136	182	479	100.0
PCT	.2	.0	.0	1.5	12.5	19.4	28.4	38.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.4	.4	.4	.4	.2	.2	.4	.7	.0	.0
3.5	2.3	1.9	.8	3.6	3.3	1.6	2.1	.0	1.7
5.6	5.2	2.2	2.5	6.0	15.3	9.4	2.7	.0	4.4
1.1	.8	1.6	.8	2.8	5.8	2.9	2.5	.0	1.0
.0	.1	.2	.0	1.6	1.0	.3	.0	.0	.2
10.6	8.9	6.3	4.4	14.2	25.7	14.6	7.9	.0	7.3

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	77	76	72	64	57	53	51	64.4	172
06&09	74	72	70	63	55	49	48	62.9	222
12&15	64	71	68	62	56	53	52	61.8	135
18&21	76	69	68	62	55	51	50	61.4	195
TOT	64	72	70	63	55	53	48	62.7	764

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	2.6	19.0	22.4	28.4	27.6	80	116
06&09	.7	2.0	12.9	19.0	34.0	31.3	82	147
12&15	.0	.0	8.6	17.1	23.8	50.5	86	105
18&21	.0	1.6	7.9	17.3	27.6	45.7	86	127
TOT	1	8	60	94	143	159	83	495

FEBRUARY

PERIOD: (PRELIMINARY) 1933-1978
(OVER-ALL) 1858-1978

TABLE 17

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.3E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
14/16	.0	.0	.0	.4	.4	.2	.0	.0	.0	5	.0	.9
11/13	.0	.0	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
9/10	.0	.0	.0	.0	.2	.6	.2	.0	.0	5	.2	.7
7/8	.0	.0	.2	.4	.7	.5	.0	.2	.0	11	.0	2.0
6	.0	.0	.0	.4	.6	.7	.0	.0	.0	9	.2	1.5
5	.0	.0	.2	.9	.7	.0	.2	.0	.0	11	.2	1.8
4	.0	.0	.2	2.0	1.1	.0	.2	.0	.0	19	.2	3.3
3	.0	.2	.4	2.2	1.1	.6	.0	.0	.0	24	.4	4.1
2	.0	.4	1.8	3.9	1.8	.6	.0	.0	.0	46	.6	7.9
1	.0	.4	3.1	5.0	4.6	.9	.0	.0	.0	76	1.3	12.7
0	.0	.7	2.4	8.1	2.9	.7	.2	.0	.0	82	.9	14.2
-1	.0	.9	2.6	6.1	2.4	.7	.0	.0	.0	69	.2	12.5
-2	.0	.4	2.9	5.3	2.2	.6	.0	.0	.0	62	.6	10.9
-3	.2	.9	3.3	3.3	.7	.2	.0	.0	.0	47	.4	8.3
-4	.2	1.7	1.7	2.0	.7	.2	.0	.0	.0	35	.0	6.4
-5	.2	.6	1.3	1.5	.6	.0	.0	.0	.0	22	.0	4.1
-6	.2	.2	.9	.6	.4	.0	.0	.0	.0	12	.0	2.2
-7/-8	.2	.0	.7	.2	.0	.0	.0	.0	.0	6	.0	1.1
TOTAL	5	34	118	230	115	35	4	1	1	543	27	516
PCT	.9	6.3	21.7	42.4	21.2	6.4	.7	.2	.2	100.0	5.0	95.0

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.8	.0	.0	.0	.0	1.3
1-2	.3	2.1	.3	.0	.0	.0	2.7
3-4	.0	.8	1.8	.0	.0	.0	2.6
5-6	.0	.0	.0	.3	.0	.0	.3
7	.0	.0	.2	.3	.0	.0	.5
8-9	.0	.0	.2	.8	.0	.0	1.0
10-11	.0	.0	.0	.5	.0	.0	.5
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.7	2.5	2.1	.0	.0	9.1

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.7	.3	.0	.0	.0	1.1
1-2	.0	2.5	.6	.0	.0	.0	3.0
3-4	.0	1.7	.9	.0	.0	.0	2.6
5-6	.0	.0	1.6	.6	.0	.0	2.1
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.6	.4	.3	.0	1.2
10-11	.0	.0	.3	.1	.0	.0	.4
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.3	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	4.9	4.9	1.3	.3	.3	11.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.8	.0	.0	.0	.0	1.1
1-2	.0	1.9	.5	.0	.0	.0	2.4
3-4	.0	.3	1.2	.3	.0	.0	1.8
5-6	.0	.0	.9	.3	.0	.0	1.2
7	.0	.0	.6	.0	.0	.0	.6
8-9	.0	.3	.0	.0	.0	.0	.3
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.3	3.2	.8	.0	.0	7.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	.0	.0	.0	.0	.4
1-2	.0	1.8	.1	.0	.0	.0	1.8
3-4	.3	.3	.4	.0	.0	.0	.9
5-6	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.3	1.1	.0	.0	.0	3.8

PERIOD: (OVER-ALL) 1963-197A

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TABLE 18 (CONT)

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.3E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.4	.0	.0	.0	.0	1.3
1-2	.0	3.1	.5	.0	.0	.0	4.5
3-4	.0	.8	1.7	.0	.0	.0	2.5
5-6	.0	.0	.0	.3	.0	.0	1.1
7	.0	.0	.0	.2	.0	.0	.2
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.0	.8	.0	.0	.8
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.5	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	4.4	3.3	2.5	.0	.0	11.8

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	3.8	1.3	.0	.0	.0	.0	5.1
1-2	.6	5.1	.6	.0	.0	.0	6.3
3-4	.0	.9	4.7	.3	.0	.0	5.9
5-6	.0	.4	2.8	.4	.0	.0	3.5
7	.0	.0	1.2	1.6	.0	.0	2.8
8-9	.0	.0	.3	.4	.0	.0	.7
10-11	.0	.0	1.1	.0	.0	.0	1.1
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.6	.0	.0	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.3	.0	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	4.3	7.7	11.9	3.5	.0	.0	26.6

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.7	1.0	.0	.0	.0	.0	2.7
1-2	.0	1.2	.5	.0	.0	.0	1.7
3-4	.0	.4	1.9	.3	.0	.0	1.9
5-6	.0	.5	1.1	1.1	.0	.0	2.6
7	.0	.0	.9	.2	.0	.0	.7
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.3	.0	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	3.1	3.5	2.1	.0	.0	10.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.8	.6	.0	.0	.0	.0	1.5	
1-2	.0	1.8	.1	.0	.0	.0	1.9	
3-4	.3	.4	1.4	.6	.0	.0	2.7	
5-6	.0	.0	1.2	.3	.0	.0	1.5	
7	.0	.0	.8	.3	.0	.0	1.1	
8-9	.0	.0	.1	.3	.0	.0	.4	
10-11	.0	.0	.0	.1	.3	.0	.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	2.9	3.6	1.5	.3	.0	9.4	90.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	18.3	5.9	.3	.0	.0	.0	24.5	
1-2	1.7	19.4	3.4	.0	.0	.0	24.5	
3-4	.6	5.6	13.2	1.4	.0	.0	20.8	
5-6	.0	.8	8.7	3.1	.0	.0	12.7	
7	.0	.0	3.9	2.5	.0	.0	6.5	
8-9	.0	.3	1.1	2.5	.3	.0	4.2	
10-11	.0	.5	1.4	2.0	.3	.0	3.7	
12	.0	.0	.3	1.1	.0	.0	1.4	
13-16	.0	.0	.0	1.1	.0	.0	1.1	
17-19	.0	.0	.0	.0	.0	.3	.3	
20-22	.0	.0	.3	.0	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	20.6	32.1	32.7	13.8	.6	.3	100.0	355

PERIOD: (OVER-ALL) 1949-197A

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	3.1	6.0	5.2	2.3	.0	1.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3	.0	71	5
6-7	.0	1.3	3.9	4.4	6.8	4.2	2.1	1.6	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	99	7
8-9	.0	1.0	.5	3.9	5.0	4.2	4.4	.5	1.8	1.0	.5	.0	.0	.0	.0	.0	.0	.3	.0	88	8
10-11	.0	4.4	1.0	.5	1.6	.5	1.0	1.0	1.6	1.6	.3	.0	.0	.3	.0	.0	.0	.0	.0	53	8
12-13	.0	.0	.8	1.0	1.3	1.0	.3	.5	.5	.5	.5	.0	.0	.0	.0	.0	.0	.3	.0	25	9
>13	.0	.0	.0	2.1	.5	.0	.3	.0	.3	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	14	11
INDET	3.7	.8	1.3	.8	1.0	.0	1.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	4
TOTAL	15	41	52	67	71	38	40	15	23	14	5	0	0	1	0	1	0	0	0	383	7
PCT	3.9	10.7	13.6	17.5	18.5	9.9	10.4	3.9	6.0	3.7	1.3	.0	.0	.3	.0	.3	.0	.0	.0	100.0	

MARCH

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1863-1977

AREA 0030 SOUTH ISLAND (NW)
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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	10.8	1.4	2.4	.0	.0	.0	.0	14.6	4.9	.0	9.0	.0	1.0		.0	69.1
NE	7.4	.0	8.9	.0	.0	.0	.0	16.4	1.5	1.5	2.6	.0	1.9		.0	76.2
E	3.8	1.9	11.0	.0	.0	.0	.0	16.7	.0	.0	1.9	1.9	3.8		.0	75.6
SE	4.1	2.7	3.4	.0	.0	.0	.0	10.2	.0	.0	2.7	.0	.0		.0	87.1
S	4.5	.7	1.4	.0	.0	.0	.0	6.5	.0	.0	.0	.0	.0		.0	93.5
SW	1.6	2.0	2.9	.0	.0	.0	.0	6.4	4.1	.7	2.9	.0	.7		.0	85.3
W	2.7	2.3	5.4	.0	.0	.0	.0	9.3	2.7	2.3	2.3	.0	.0		.0	83.3
NW	7.5	2.3	5.2	.0	.0	.0	.0	15.0	1.2	1.2	11.0	.0	.0		.0	71.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	2.0	2.0	.0	.0	.0	.0	4.1	2.0	.0	2.0	.0	6.1		.0	85.7
TOT PCT	4.4	1.0	4.4	.0	.0	.0	.0	10.3	2.5	.7	3.6	.2	1.3		.0	81.5
TOT OBS:	611															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.4	1.9	4.5	.0	.0	.0	.0	12.2	1.9	.0	5.8	.0	1.3		.0	78.8
06&09	4.5	.6	2.2	.0	.0	.0	.0	7.3	2.8	1.1	1.1	.0	2.2		.0	85.4
12&15	3.1	1.3	3.8	.0	.0	.0	.0	7.7	3.1	.8	2.3	.0	.8		.0	85.4
18&21	5.6	2.5	7.5	.0	.0	.0	.0	15.5	2.5	.6	5.0	.6	.6		.0	75.2
TOT PCT	5.0	1.6	4.5	.0	.0	.0	.0	10.7	2.4	.6	3.5	.2	1.3		.0	81.1
TOT OBS:	625															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)								HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	5.3	3.5	1.6	.5	.1		11.9	14.5	11.2	33.3	12.6	19.1	10.4	10.7	9.8	13.5
NE	.6	4.3	3.1	.5	.1	.0		10.6	10.4	13.9	.0	10.7	13.7	7.0	17.9	10.1	5.2
E	1.0	5.1	2.2	.7	.1	.1		9.3	11.1	9.6	16.7	7.6	12.3	8.9	14.3	10.6	9.6
SE	.4	3.4	1.9	.5	*	.0		5.8	10.7	6.4	.0	3.7	1.0	9.3	.0	5.9	8.3
S	1.1	6.2	4.0	1.0	.2	.0		12.5	11.4	11.7	.0	10.7	17.2	12.6	25.0	13.7	10.4
SW	1.6	9.7	9.4	2.4	.5	.0		23.6	12.9	24.2	33.3	24.0	12.7	21.7	3.6	26.7	22.9
W	.6	4.5	3.6	2.2	.0	.0		10.9	13.9	9.8	.0	12.9	17.2	11.1	.0	8.7	12.5
NW	.1	3.5	2.9	1.7	.2	.0		8.4	13.9	7.5	16.7	11.1	2.9	7.2	14.3	8.9	9.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.0							7.0	.0	4.7	.0	6.7	3.9	11.9	14.3	6.2	8.3
TOT OBS	93	509	211	75	12	2	702		11.6	169	6	149	51	135	7	161	24
TOT PCT	13.2	44.0	30.1	10.7	1.7	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)				
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	2.4	5.0	3.3	.8	.4		11.9	14.5	12.0	14.3	10.4	10.3				
NE	3.5	5.5	1.4	.3	.0		10.6	10.4	13.4	11.5	7.6	9.5				
E	3.2	4.7	.6	.7	.1		9.3	11.1	8.9	8.8	9.2	10.4				
SE	2.4	2.3	.8	.4	.0		5.8	10.7	6.1	3.0	8.8	6.2				
S	3.8	5.9	2.4	.4	.1		12.5	11.4	11.3	12.4	13.2	13.2				
SW	5.3	11.6	5.2	1.5	.1		23.6	12.9	26.4	21.1	20.8	25.8				
W	2.1	4.8	3.2	.8	.0		10.9	13.9	9.4	14.0	10.6	9.2				
NW	1.8	3.8	2.6	.2	*		8.4	13.9	7.9	9.0	7.6	8.9				
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0				
CALM	7.0						7.0	.0	4.6	6.0	12.0	6.5				
TOT OBS	221	306	135	35	5	702		11.6	175	200	142	185				
TOT PCT	31.5	43.6	19.2	5.0	.7		100.0		100.0	100.0	100.0	100.0				

MARCH

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1866-1977

AREA 0030 SOUTH ISLAND (NW)
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.6	5.7	46.9	29.1	10.9	2.9	.0	12.3	100.0	175
06&09	6.0	8.0	42.0	31.0	11.5	1.0	.5	11.6	100.0	200
12&15	12.0	4.2	44.4	29.6	8.5	1.4	.0	10.6	100.0	142
18&21	6.5	6.5	43.2	30.3	11.4	1.6	.5	11.8	100.0	185
TOT	49	44	309	211	75	12	2	11.6		702
PCT	7.0	6.3	44.0	30.1	10.7	1.7	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.2	.7	2.9	4.1		5.2
NE	2.2	1.1	2.8	5.9		5.9
E	1.7	1.0	2.3	2.7		5.2
SE	2.3	.3	2.3	1.7		4.2
S	3.9	1.9	4.0	2.8		4.8
SW	4.8	7.1	7.4	4.9		4.7
W	2.2	2.6	4.5	2.8		4.9
NW	.7	1.0	1.7	3.9		6.2
VAR	.0	.0	.0	.0		.0
CALM	2.9	1.6	2.3	.8		3.7
TOT OBS	91	66	116	110	383	5.0
TOT PCT	23.9	17.2	30.3	28.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.7	.0	.0	2.3	2.0	.3	.2	.5	.0	.0	5.0	
NE	1.7	.3	.0	.3	2.1	1.4	.6	.3	.3	.0	5.2	
E	.7	.0	.3	.7	.8	.9	1.0	.0	.0	.0	3.3	
SE	.3	.0	.3	.1	1.3	1.0	.0	.0	.0	.0	3.3	
S	.5	.0	.3	1.2	1.8	.7	.4	.0	.0	.3	7.4	
SW	.3	.3	.8	1.2	3.3	2.5	1.0	.1	.3	.0	14.4	
W	.2	.0	.0	.9	2.6	1.2	.5	.1	.0	.0	6.3	
NW	.1	.0	.0	.9	1.8	1.0	.5	.0	.0	.0	2.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.5	.5	.5	.0	.3	.3	.0	5.5	
TOT OBS	17	2	6	31	62	36	16	5	3	1	204	383
TOT PCT	4.4	.5	1.6	8.1	16.2	9.4	4.2	1.3	.8	.3	53.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >A500	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
* OR >9000	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
* OR >3500	5.1	6.6	6.6	6.6	6.6	6.6	6.6	6.6
* OR >2000	13.2	15.8	15.8	15.8	15.8	15.8	15.8	15.8
* OR >1000	24.9	29.8	31.6	31.6	31.6	31.6	31.6	31.6
* OR >400	29.0	36.1	39.4	39.4	39.7	39.7	39.9	39.9
* OR >200	29.5	37.7	41.0	41.0	41.2	41.2	41.5	41.5
* OR >100	29.8	38.2	41.5	41.5	41.7	41.7	42.0	42.0
* OR > 0	30.5	38.9	44.0	45.0	45.3	45.5	46.3	46.3
TOTAL	120	153	173	177	178	179	182	182

TOTAL NUMBER OF OBS: 393 PCT FREQ NH <5/8: 53.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.2	12.8	10.6	12.3	5.6	4.3	7.4	9.5	24.0	3.5	462

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.7	.2	.0	.0	.0	.0	.0	.2	.0	.2	1.3	
	TOT %	.9	.2	.0	.0	.0	.0	.0	.2	.0	.2	1.5	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	*	.0	.2	.0	.2	.0	.0	.0	.0	.5	
	TOT %	.1	*	.0	.2	.0	.2	.0	.0	.0	.0	.5	
1<2	PCP	.3	.3	.0	.0	.3	.0	.0	.0	.0	.0	1.0	
	NO PCP	.0	.2	.3	.0	.0	.5	.0	.0	.0	.0	1.0	
	TOT %	.3	.5	.3	.0	.3	.5	.0	.0	.0	.0	2.0	
2<5	PCP	.5	.9	1.1	.2	.0	.4	.3	.4	.0	.0	3.6	
	NO PCP	.5	*	.0	.0	.0	*	.1	.0	.0	.0	.7	
	TOT %	.9	.9	1.1	.2	.0	.4	.4	.4	.0	.0	4.3	
5<10	PCP	.3	.3	.3	.2	.3	.8	.5	.5	.0	.2	3.4	
	NO PCP	2.8	1.4	1.4	.3	1.6	4.3	2.0	2.0	.0	.7	16.5	
	TOT %	3.1	1.8	1.7	.6	2.0	5.0	2.5	2.5	.0	.8	20.0	
10+	PCP	.5	.3	.0	.2	.1	.5	.2	.2	.0	.2	2.1	
	NO PCP	6.0	7.3	5.4	4.9	9.5	18.5	7.6	3.8	.0	6.9	69.7	
	TOT %	6.4	7.6	5.4	5.1	9.6	19.0	7.7	4.0	.0	7.0	71.8	
	TOT OBS												611
	TOT PCT	11.8	11.0	8.6	6.0	11.9	25.1	10.6	7.1	.0	8.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.2	.2	.0	.0	.0	.0	.0	.2	.0		.7	
	11-21	.3	*	.0	.0	.0	.0	.0	.0	.0		.3	
	22+	.3	.0	.0	.0	.0	.0	.0	.0	.0		.3	
	TOT %	.9	.2	.0	.0	.0	.0	.0	.2	.0	.2	1.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	*	.0	.2	.0	.0	.0	.0	.0		.3	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	*	.0	.2	.0	.2	.0	.0	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.5	.0	.0	.0		.7	
	11-21	.3	.5	.3	.0	.2	.0	.0	.0	.0		1.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.3	.5	.3	.0	.3	.5	.0	.0	.0	.0	2.0	
2<5	0-3	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.2	.5	.6	.2	.0	.2	.2	.0	.0		2.0	
	11-21	.3	.3	.2	.0	.0	.0	.0	.2	.0		1.0	
	22+	.4	*	.2	.0	.1	.4	.2	.2	.0		1.5	
	TOT %	.9	.9	1.1	.2	.1	.7	.4	.4	.0	.0	4.6	
5<10	0-3	.2	.2	.2	.0	.0	.0	.0	.0	.0	.8	1.3	
	4-10	1.3	.4	.8	.3	.8	2.2	.9	1.5	.0		8.3	
	11-21	1.3	.7	.6	.2	1.0	1.8	1.1	.5	.0		7.2	
	22+	.4	.5	.2	.0	.2	1.0	.4	.6	.0		3.3	
	TOT %	3.2	1.7	1.7	.6	2.0	5.0	2.4	2.6	.0	.8	20.0	
10+	0-3	.6	.5	.8	.5	1.0	1.7	.7	.1	.0	7.0	12.8	
	4-10	3.5	5.2	3.1	2.8	5.2	7.8	3.7	1.5	.0		32.7	
	11-21	1.5	1.8	1.3	1.2	2.4	7.7	2.0	1.8	.0		19.7	
	22+	.9	.2	.3	.6	.9	1.7	1.3	.4	.0		6.3	
	TOT %	6.4	7.6	5.4	5.0	9.6	18.9	7.6	3.9	.0	7.0	71.5	
	TOT OBS												615
	TOT PCT	11.8	11.0	8.6	6.0	11.9	25.2	10.5	7.1	.0	8.0	100.0	

MARCH

PERIOD: (PRIMARY) 1946-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.8	.0	3.4	11.8	19.3	4.2	4.2	.8	1.7	.0	46.2	53.8	119
06&09	.8	.8	.0	7.9	13.5	13.5	4.0	2.4	.8	.8	44.4	55.6	126
12&15	6.4	.0	.0	3.8	10.3	5.1	5.1	.0	.0	.0	30.8	69.2	78
18&21	10.2	1.0	2.0	6.1	15.3	10.2	3.1	1.0	.0	.0	49.0	51.0	98
TOT	17	2	6	33	63	36	17	5	3	1	183	238	421
PCT	4.0	.5	1.4	7.8	15.0	8.6	4.0	1.2	.7	.2	43.5	56.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	2.5	.6	1.9	5.7	15.3	73.9	157
06&09	.0	1.1	1.1	2.2	21.8	73.7	179
12&15	.8	.0	3.8	3.1	16.9	75.4	130
18&21	2.5	.6	1.2	8.0	24.5	63.2	163
TOT	9	4	12	30	125	449	629
PCT	1.4	.6	1.9	4.8	19.9	71.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.9	6.2	19.5	30.1	50.4	113
06&09	.8	2.5	11.8	34.5	53.8	119
12&15	7.2	7.2	13.0	21.7	65.2	69
18&21	10.9	14.1	22.8	29.3	47.8	92
TOT	17	28	66	117	210	393
PCT	4.3	7.1	16.8	29.8	53.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.0	.2	.0	.0	1	.2
70/74	.0	.0	.0	.2	.2	.8	1.2	.6	14	2.8
65/69	.0	.0	.0	.4	.8	4.0	7.8	10.6	118	23.6
60/64	.0	.2	.0	.2	2.6	10.6	13.2	26.2	265	53.0
55/59	.0	.0	.0	.4	2.0	3.2	5.2	6.8	88	17.6
50/54	.0	.0	.0	.2	.6	1.0	.4	.2	12	2.4
45/49	.0	.0	.0	.0	.2	.0	.0	.2	2	.4
TOTAL	0	1	0	7	31	99	139	223	500	100.0
PCT	.0	.2	.0	1.4	6.2	19.8	27.8	44.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0
	.6	.2	.0	.1	.2	.4	.3	.6	.0	.6
	3.2	4.7	2.1	.5	2.2	4.5	2.1	2.9	.0	1.6
	6.0	6.2	5.6	3.4	5.9	12.3	5.7	3.4	.0	4.6
	2.9	.4	.2	1.7	2.7	5.3	2.4	1.6	.0	.6
	.2	.0	.0	.3	.9	1.1	.0	.0	.0	.0
	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0
	12.8	11.5	7.9	6.0	12.2	23.5	10.6	8.3	.0	7.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	86	73	70	64	55	51	50	63.5	170
06&09	82	72	68	63	56	53	52	63.0	199
12&15	68	67	66	62	55	52	49	61.3	139
18&21	67	66	66	61	55	50	48	60.9	180
TOT	86	72	68	63	55	51	48	62.7	688

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.1	7.1	21.3	33.1	35.4	84	127
06&09	.0	2.7	8.2	20.4	25.2	43.5	85	147
12&15	.0	.0	4.7	18.9	30.2	46.2	87	106
18&21	.0	.8	3.8	18.3	23.7	53.4	89	131
TOT	0	9	31	101	142	228	86	511

MARCH

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1867-1977

AREA 0030 SOUTH ISLAND (NW)
42.0S 168.3E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
14/16	.0	.0	.0	.0	1.0	.2	.2	.0	.0	.0	7	.0	1.3
11/13	.0	.0	.0	.0	.4	1.5	.4	.0	.0	.2	13	.0	2.5
9/10	.0	.0	.0	.0	1.0	2.3	.0	.0	.0	.0	17	.0	3.2
7/8	.0	.0	.0	.0	3.4	1.9	.8	.2	.0	.0	33	.0	6.3
6	.0	.0	.0	.0	1.3	.4	.0	.0	.0	.0	9	.0	1.7
5	.0	.0	.0	.0	2.5	.8	.4	.0	.0	.0	19	.0	3.6
4	.0	.0	.0	.2	1.5	2.1	.8	.0	.0	.0	24	.2	4.4
3	.0	.0	.0	1.0	1.9	1.5	.2	.0	.0	.0	24	.4	4.2
2	.0	.0	.2	1.7	4.2	1.9	.2	.0	.0	.0	43	.8	7.6
1	.0	.0	.0	1.7	5.3	2.5	.4	.0	.0	.0	52	.8	9.1
0	.0	.0	.8	.8	6.9	2.9	.0	.0	.0	.0	59	.4	10.9
-1	.0	.2	.2	2.3	5.7	.6	.4	.0	.0	.0	49	.4	9.0
-2	.0	.0	.6	3.4	7.2	.8	.0	.0	.0	.0	63	.0	12.0
-3	.0	.0	.2	3.8	3.2	1.7	.0	.0	.0	.0	47	.0	9.0
-4	.0	.0	1.0	2.3	2.3	.4	.0	.0	.0	.0	31	.2	5.7
-5	.0	.2	.8	1.0	1.0	.4	.0	.0	.0	.0	17	.4	2.9
-6	.0	.2	.4	1.0	.2	.0	.0	.0	.0	.0	9	.0	1.7
-7/-8	.2	.0	.4	.6	.2	.2	.0	.0	.0	.0	8	.0	1.5
TOTAL	1	3	23	103	258	115	19	2	0	1	525	18	507
PCT	.2	.6	4.4	19.6	49.1	21.9	3.6	.4	.0	.2	100.0	3.4	96.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.3	.2	.0	.0	.0	2.1
1-2	.0	.8	.3	.0	.0	.0	1.1
3-4	.0	1.1	1.3	.3	.0	.0	2.8
5-6	.0	.4	1.2	.4	.0	.0	2.1
7	.0	.0	.8	.8	.0	.0	1.6
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.6	3.9	1.9	.3	.0	10.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	2.5	.4	.0	.0	.0	3.8
1-2	.3	2.8	1.2	.0	.0	.0	4.3
3-4	.0	1.3	.7	.0	.0	.0	1.9
5-6	.0	.3	1.2	.0	.0	.0	1.5
7	.0	.3	.7	.1	.0	.0	1.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.3	.3	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	7.1	4.4	.4	.0	.0	13.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.7	2.1	.0	.0	.0	.0	3.8
1-2	.0	2.3	.2	.0	.0	.0	2.5
3-4	.0	.3	.0	.0	.0	.0	1.2
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.0	.3	.3	.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	4.7	1.6	.0	.3	.3	8.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	2.8	.1	.0	.0	.0	2.8
3-4	.0	.4	1.3	.0	.0	.0	1.6
5-6	.0	.0	.1	.0	.0	.0	.1
7	.0	.3	.0	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.4	1.4	.3	.0	.0	6.1

PERIOD: (OVER-ALL) 1963-1977

MARCH

AREA 0030 SOUTH ISLAND (NW)
42.0S 166.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.7	.0	.0	.0	.0	1.6	2.0	2.5	.0	.0	.0	.0	4.5
1-2	.0	2.6	.4	.0	.0	.0	3.2	.4	3.7	1.5	.0	.0	.0	5.8
3-4	.0	1.1	1.0	.0	.0	.0	2.2	.0	3.0	3.7	.0	.0	.0	6.7
5-6	.0	.5	1.0	.2	.0	.0	1.7	.0	.7	2.9	.2	.0	.0	3.9
7	.0	.0	.8	.5	.0	.0	1.3	.0	.0	1.6	.7	.3	.0	2.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6
10-11	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	5.0	3.7	1.0	.0	.0	10.6	2.6	10.0	10.3	1.9	.3	.0	25.0

	W							NW						TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	1.0	1.5	.0	.0	.0	.0	2.5	.0	.4	.0	.0	.0	.0	.4	
1-2	.0	1.9	.5	.0	.0	.0	2.4	.0	.7	.4	.0	.0	.0	1.0	
3-4	.0	.7	1.0	.5	.0	.0	2.2	.0	1.0	1.7	.4	.0	.0	3.1	
5-6	.0	.5	1.1	.4	.0	.0	2.1	.0	.1	.3	.1	.0	.0	.6	
7	.0	.0	.4	.6	.0	.0	1.2	.0	.0	.3	.0	.0	.0	.3	
8-9	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.0	4.6	3.2	2.4	.0	.0	11.2	.0	2.2	3.0	.5	.3	.0	6.0	90.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	16.6	11.8	.6	.0	.0	.0	29.0	
1-2	1.2	17.5	4.7	.0	.0	.0	23.4	
3-4	.0	8.4	11.5	1.2	.0	.0	21.6	
5-6	.0	2.7	6.0	1.5	.0	.0	12.1	
7	.0	.6	4.7	2.7	.6	.3	8.9	
8-9	.0	.0	.6	.6	.0	.0	1.2	
10-11	.0	.0	.6	1.5	.0	.0	2.1	
12	.0	.0	.3	.0	.0	.0	.3	
13-16	.0	.0	.0	.6	.6	.0	1.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.3	.0	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	17.8	41.4	31.1	8.3	1.2	.3	100.0	338

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	6.7	3.9	6.4	5.0	2.8	.6	1.7	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	99	4
6-7	.0	1.4	3.6	4.4	4.7	1.9	2.2	.6	.3	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	72	7
8-9	.0	1.4	3.6	4.6	4.7	1.4	1.7	1.4	1.4	.8	.0	.0	.0	.3	.0	.0	.0	.0	.0	75	7
10-11	.0	2.5	1.4	1.7	1.9	1.4	.0	.8	.3	.8	.6	.3	.0	.0	.0	.0	.0	.0	.0	42	7
12-13	.0	.0	1.9	1.1	1.4	1.4	.3	.3	.3	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	26	8
>13	.0	.0	.0	.3	.6	.3	.3	.0	.6	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	9	13
UNDET	9.8	1.7	.3	.6	.6	.3	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	2
TOTAL	45	39	62	62	60	26	25	12	12	7	4	5	0	1	0	0	0	0	0	365	6
PCT	12.5	10.8	17.2	17.2	16.7	7.2	6.9	3.3	3.3	1.9	1.1	1.4	.0	.3	.0	.0	.0	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1864-1977

AREA 0030 SOUTH ISLAND (NW)
42.0S 169.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	13.3	6.0	1.2	.0	.0	.0	.0	21.3	4.4	2.8	3.2	.0	.0		.0	69.9
NE	6.9	4.8	6.0	.0	.0	.0	.0	17.3	9.7	.4	4.0	.0	.0		.0	68.5
E	5.9	1.6	2.4	.0	.0	.0	.0	9.8	7.9	1.6	3.9	.0	.0		.0	76.8
SE	6.3	.5	4.2	.0	.0	.0	.0	10.9	2.1	.0	.0	.0	.5		.0	86.5
S	.7	3.8	1.4	.0	.0	.0	.0	5.9	1.0	.0	1.4	.0	1.0		.0	90.7
SW	1.7	6.3	1.0	.0	.0	.0	.0	9.1	5.9	.0	.7	.0	1.4		.0	82.9
W	3.7	2.0	1.5	.0	.0	.0	.0	7.1	6.6	.0	.0	.0	1.0		1.0	84.3
NW	18.4	7.9	5.3	.0	.0	.0	.0	31.6	3.3	.0	2.6	.0	.0		.0	62.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	2.2	.0	2.2	.0	.0	.0	.0	4.3	.0	.0	2.2	.0	.0		.0	93.5
TOT PCT	5.3	4.1	2.4	.0	.0	.0	.0	11.6	5.0	.5	1.7	.0	.6		.2	80.5
TOT OBS:	637															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	5.3	2.4	.6	.0	.0	.0	.0	8.2	9.2	.0	.6	.0	2.4		.0	80.6
06609	5.8	4.7	1.7	.0	.0	.0	.0	11.6	2.9	.6	2.3	.0	.0		.0	82.6
12615	4.8	3.4	3.4	.0	.0	.0	.0	11.6	5.5	.0	2.1	.0	.0		.7	80.1
18621	4.9	5.5	3.7	.0	.0	.0	.0	14.0	3.0	1.2	1.8	.0	.0		.0	80.5
TOT PCT	5.2	4.0	2.3	.0	.0	.0	.0	11.3	4.9	.5	1.7	.0	.6		.2	81.0
TOT OBS:	652															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)						
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.1	3.1	2.9	1.9	1.2	.1		10.3	17.0	10.8	55.0	10.2	6.4	12.6	.0	4.0	16.9
NE	.4	4.2	3.6	.9	.7	.0		9.7	13.9	9.3	.0	10.9	13.6	10.5	8.3	8.6	7.4
E	1.1	4.7	3.1	.6	.1	.1		9.8	10.8	9.4	20.0	6.2	19.3	9.0	25.0	12.1	7.4
SE	.6	4.4	1.9	.7	.2	.0		7.7	10.7	6.9	.0	8.1	18.6	7.8	.0	6.5	16.2
S	.6	4.2	5.2	.9	.6	.1		11.6	14.6	10.1	.0	14.4	16.4	13.6	16.7	8.8	5.9
SW	1.0	9.6	9.9	4.9	.5	.3		22.1	16.7	20.6	10.0	25.2	12.1	20.6	20.8	23.6	30.9
W	1.3	5.3	6.2	2.7	.2	.0		15.6	13.9	18.5	10.0	16.6	10.7	12.9	12.5	18.8	1.5
NW	.1	1.9	3.2	1.3	.3	.0		6.8	15.6	7.4	5.0	6.1	2.9	4.6	.0	10.4	8.1
VAR	.0	.0	.6	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.3							6.3	.0	6.9	.0	4.3	.0	8.5	16.7	7.0	5.9
TOT OBS	91	242	262	101	28	5	729		13.6	188	10	181	35	153	6	142	34
TOT PCT	12.5	33.2	35.9	13.9	3.8	.7		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.9	3.8	2.6	1.6	.3		10.3	17.0	13.0	9.6	12.1	6.5
NE	1.5	5.8	1.4	.8	.2		9.7	13.9	8.8	11.4	10.4	8.4
E	3.9	4.2	1.4	.1	.1		9.8	10.8	10.0	8.5	9.6	11.2
SE	2.6	3.8	.9	.3	.0		7.7	10.7	6.6	8.3	7.5	8.4
S	2.2	5.7	2.6	.8	.4		11.6	14.6	9.6	14.8	13.7	8.2
SW	2.9	8.7	7.1	2.7	.6		22.1	16.7	20.1	22.8	20.6	25.0
W	3.1	6.5	5.4	.5	.1		15.6	13.9	18.1	15.6	12.9	15.5
NW	.9	3.3	2.2	.4	.0		6.8	15.6	7.3	5.5	4.4	9.9
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	6.3						6.3	.0	6.6	3.6	8.8	6.8
TOT OBS	145	305	173	53	13	729		13.6	198	196	159	176
TOT PCT	25.4	41.8	23.7	7.3	1.8		100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1868-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	6.6	7.6	32.8	31.3	17.7	3.5	.5	13.9	100.0	198
06&09	3.6	4.6	32.7	39.8	15.8	3.1	.5	14.3	100.0	196
12&15	8.8	6.3	31.4	39.6	8.8	5.0	.0	12.6	100.0	159
18&21	6.8	6.3	35.8	33.5	11.9	4.0	1.7	13.5	100.0	176
TOT	46	45	242	262	101	28	5	13.6		729
PCT	6.3	6.2	33.2	35.9	13.9	3.8	.7		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.2	.8	3.6	4.1		6.3
NE	1.8	.6	2.7	3.8		5.7
E	4.4	1.7	2.3	2.0		3.6
SE	3.2	1.7	1.2	2.0		4.2
S	5.3	1.5	1.9	2.4		3.7
SW	7.4	4.1	5.1	3.7		4.1
W	3.3	3.0	8.9	3.0		5.0
NW	.4	1.0	2.7	2.0		6.0
VAR	.0	.0	.0	.0		.0
CALM	4.0	.7	1.4	.9		3.2
TOT OBS	133	65	128	103	429	4.6
TOT PCT	31.0	15.2	29.8	24.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.4	.0	.8	1.5	1.6	1.2	.6	.3	.0	.0	3.1	
NE	.3	.0	.0	1.0	1.9	1.6	.8	.1	.2	.0	3.0	
E	.2	.0	.0	.6	1.2	1.5	.0	.0	.0	.0	7.0	
SE	.2	.0	.2	.5	1.1	.6	.2	.0	.0	.0	5.2	
S	.0	.0	.0	.6	2.2	.9	.0	.0	.0	.2	7.2	
SW	.6	.0	.2	1.2	3.6	1.4	.3	.2	.2	.1	12.5	
W	.8	.0	.6	.9	4.4	2.2	.6	.5	.0	.0	8.2	
NW	.3	.0	.4	.9	1.5	.5	.1	.1	.0	.0	2.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.9	.5	.7	.0	.0	.0	4.9	
TOT OBS	12	0	10	31	79	45	14	5	2	1	230	429
TOT PCT	2.8	.0	2.3	7.2	18.4	10.5	3.3	1.2	.5	.2	53.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.7	.7	.7	.7	.7	.7	.7	.7
= OR >5000	1.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1
= OR >3500	4.4	5.3	5.3	5.3	5.3	5.3	5.3	5.3
= OR >2000	14.7	16.1	16.1	16.1	16.1	16.1	16.1	16.1
= OR >1000	27.1	32.9	34.3	34.3	34.3	34.3	34.3	34.3
= OR >600	29.9	38.9	41.4	41.4	41.6	41.6	41.6	41.6
= OR >300	31.0	40.9	43.7	43.7	43.9	43.9	43.9	43.9
= OR >150	31.0	40.9	43.7	43.7	43.9	43.9	43.9	43.9
= OR > 0	31.5	42.5	46.0	46.0	46.4	46.4	46.4	46.4
TOTAL	137	185	200	200	202	202	202	202

TOTAL NUMBER OF OBS: 435 PCT FREQ NH <5/8: 53.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.9	17.1	9.2	7.9	7.9	5.8	9.2	8.8	21.0 2.5	480

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	
1/2<1	PCP	.0	.2	.2	.0	.0	.0	.1	*	.0	.0	.5	
	NO PCP	.2	.2	.0	.0	.2	.0	.2	.1	.0	.0	.8	
	TOT %	.2	.4	.2	.0	.2	.0	.3	.1	.0	.0	1.3	
1<2	PCP	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
2<5	PCP	.4	.5	.3	.3	.0	.0	.0	.3	.0	.0	1.9	
	NO PCP	.0	.6	.2	.0	.2	.4	.0	.0	.0	.2	1.6	
	TOT %	.4	1.2	.4	.3	.2	.4	.0	.3	.0	.2	3.4	
5<10	PCP	1.4	.8	.3	.2	.7	1.5	.6	1.2	.0	.2	6.9	
	NO PCP	3.3	1.7	1.4	*	.7	4.6	2.4	1.4	.0	.6	16.1	
	TOT %	4.8	2.5	1.7	.2	1.3	6.1	3.1	2.6	.0	.8	23.0	
10+	PCP	.2	.2	.2	.3	.0	.5	.3	.2	.0	.2	2.2	
	NO PCP	4.2	5.5	7.4	6.7	9.6	15.4	12.2	2.6	.0	6.0	69.6	
	TOT %	4.3	5.7	7.6	7.0	9.6	15.9	12.5	2.9	.0	6.1	71.8	
	TOT OBS												638
	TOT PCT	9.9	9.8	10.0	7.5	11.3	22.5	15.9	6.0	.0	7.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	11-21	.0	.3	.2	.0	.0	.0	.2	.0	.0		.6	
	22+	.2	.1	.0	.0	.0	.0	.1	.1	.0		.5	
	TOT %	.2	.4	.2	.0	.2	.0	.3	.1	.0	.0	1.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.1	.1	.0		.2	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
2<5	0-3	.2	*	.1	.0	.0	.0	.0	.0	.0	.2	.5	
	4-10	.0	.2	.0	.0	.0	.3	.0	.0	.0		.5	
	11-21	.0	.5	.3	.2	.1	.1	.0	.0	.0		1.1	
	22+	.4	.5	.0	.2	.1	*	.0	.3	.0		1.6	
	TOT %	.6	1.2	.4	.3	.2	.4	.0	.3	.0	.2	3.6	
5<10	0-3	.0	.2	.0	.0	.0	*	.3	.0	.0	.8	1.2	
	4-10	1.1	.8	1.0	.0	.5	1.5	.9	.6	.0		6.5	
	11-21	1.5	1.3	.4	.2	.4	2.8	.9	1.4	.0		8.9	
	22+	2.1	.2	.3	.1	.4	1.7	.9	.7	.0		6.4	
	TOT %	4.7	2.4	1.7	.2	1.3	6.0	3.0	2.7	.0	.8	23.0	
10+	0-3	.9	.3	1.2	.7	.7	.9	1.2	.1	.0	6.1	12.0	
	4-10	1.9	3.4	3.6	3.9	3.8	4.0	4.5	1.5	.0		26.6	
	11-21	1.1	1.6	2.2	1.8	4.0	7.3	4.9	1.4	.0		24.4	
	22+	.6	.3	.6	.5	1.1	3.6	1.8	.2	.0		8.7	
	TOT %	4.5	5.7	7.6	6.9	9.6	15.8	12.4	3.1	.0	6.1	71.7	
	TOT OBS												643
	TOT PCT	10.1	9.7	9.9	7.5	11.2	22.3	15.8	6.4	.0	7.2	100.0	

APRIL

PERIOD: (PRIMARY) 1939-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.4	.0	4.8	2.0	20.4	12.9	2.7	2.0	.0	.0	46.3	53.7	147
06&09	.8	.0	.8	8.3	23.5	11.4	5.3	1.5	1.5	.8	53.8	46.2	132
12&15	3.3	.0	1.1	8.8	7.7	6.6	3.3	.0	.0	.0	30.8	69.2	91
18&21	6.9	.0	1.1	11.5	12.6	8.0	1.0	1.1	.0	.0	41.4	58.6	87
TOT	12	0	10	32	79	47	14	6	2	1	203	254	457
PCT	2.6	.0	2.2	7.0	17.3	10.3	3.1	1.3	.4	.2	44.4	55.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.6	.6	4.1	18.0	76.7	172
06&09	.0	1.1	.0	2.9	23.6	72.4	174
12&15	1.4	2.7	.0	5.5	21.2	69.2	146
18&21	.0	.6	.0	1.8	28.9	68.7	166
TOT	2	8	1	23	151	473	658
PCT	.3	1.2	.2	3.5	22.9	71.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.7	5.6	9.7	36.8	53.5	144
06&09	.8	1.6	10.9	44.5	44.5	128
12&15	3.6	7.1	17.9	16.7	65.5	84
18&21	7.6	8.9	21.5	24.1	54.4	79
TOT	11	23	60	143	232	435
PCT	2.5	5.3	13.8	32.9	53.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
65/69	.4	.0	.2	.2	.8	1.4	2.0	3.9	45	8.8
60/64	.3	.0	.0	.6	3.1	7.6	13.1	13.1	192	37.5
55/59	.0	.0	.2	.8	3.9	8.4	13.3	14.6	211	41.2
50/54	.0	.0	.2	.0	1.2	2.1	2.0	3.7	57	11.1
45/49	.0	.0	.0	.0	.2	.2	.2	.4	5	1.0
40/44	.0	.0	.0	.0	.0	.0	.2	.0	1	.2
TOTAL	2	0	3	8	48	101	157	193	512	100.0
PCT	.4	.0	.6	1.6	9.4	19.7	30.7	37.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
1.6	1.5	1.1	.6	.1	1.3	.7	.9	.0	1.0
4.0	3.2	4.0	3.2	5.4	5.5	6.8	2.9	.0	2.5
3.2	4.1	4.4	2.9	3.8	11.1	6.0	2.6	.0	3.1
.1	.9	1.1	.9	1.1	2.2	3.4	.2	.0	1.2
.0	.0	.0	.2	.0	.8	.0	.0	.0	.0
.0	.0	.0	.0	.1	*	.0	.0	.0	.0
8.9	9.6	10.5	7.8	10.7	20.9	16.9	6.7	.0	7.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	71	68	68	60	53	49	41	60.1	194
06&09	69	68	65	59	51	48	48	59.1	199
12&15	68	66	64	59	52	48	48	59.0	157
18&21	64	65	64	59	52	51	49	58.8	176
TOT	71	68	66	59	52	48	41	59.3	726

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	1.4	3.6	14.3	15.7	32.1	32.9	82	140
06&09	.0	2.1	7.6	24.1	32.4	33.8	84	145
12&15	.0	3.3	8.3	18.3	23.3	46.7	85	120
18&21	.0	.0	5.9	21.8	36.1	36.1	86	119
TOT	2	12	48	105	163	194	84	524

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1868-1977

AREA 0030 SOUTH ISLAND (NW)
42.0S 169.7E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA THP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.9	.2	.0	6	.0	1.1
11/13	.0	.0	.0	.2	.4	.2	.0	4	.0	.7
9/10	.0	.0	.0	.0	.0	1.1	.0	6	.0	1.1
7/8	.0	.0	.7	.0	.7	1.1	.0	14	.0	2.5
6	.0	.0	.2	.0	.5	.2	.5	8	.0	1.4
5	.0	.0	.2	.4	.7	.5	.0	10	.0	1.8
4	.0	.0	.2	.0	1.3	.7	.0	12	.4	1.8
3	.0	.0	.2	.5	2.0	.7	.0	19	.0	3.4
2	.0	.2	.2	1.3	2.7	1.4	.0	32	.2	5.5
1	.0	.0	.4	3.2	4.6	.4	.2	49	.0	8.8
0	.0	.0	1.1	3.8	5.2	.7	.0	60	.4	10.4
-1	.0	.0	1.3	6.3	5.2	.5	.0	74	.7	12.5
-2	.0	.2	2.7	5.2	3.4	.4	.0	66	.0	11.8
-3	.0	.5	3.6	4.3	1.3	.2	.0	55	.0	9.8
-4	.0	.5	3.0	3.8	1.3	.0	.0	48	.0	8.6
-5	.2	.4	4.1	3.0	1.1	.0	.0	49	.0	8.8
-6	.4	.7	1.1	.5	.0	.0	.0	15	.0	2.7
-7/-8	.2	1.4	1.1	.9	.0	.0	.0	20	.0	3.6
-9/-10	.0	1.1	.4	.7	.0	.0	.0	12	.0	2.1
-11/-13	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	4	29	113	190	174	46	4	560	9	551
PCT	.7	5.2	20.2	33.9	31.1	8.2	.7	100.0	1.6	98.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.2	.0	.0	.0	.0	.7
1-2	.4	1.7	.0	.0	.0	.0	2.0
3-4	.2	.6	1.0	.0	.0	.0	1.9
5-6	.0	.5	.6	.2	.4	.0	1.7
7	.0	.0	.5	.5	.2	.0	1.2
8-9	.0	.0	.2	.2	.0	.0	.5
10-11	.0	.0	.0	.2	.2	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.5	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	3.0	2.4	1.1	1.3	.0	8.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.7	.0	.0	.0	.0	2.1
1-2	.4	2.8	.0	.0	.0	.0	3.1
3-4	.0	.5	1.2	.0	.0	.0	1.7
5-6	.0	.2	.6	.2	.0	.0	1.1
7	.0	.2	.8	.0	.0	.0	1.0
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.5	.0	.5
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.4	2.5	.5	.5	.0	9.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.5	1.5	.0	.0	.0	.0	3.1
1-2	.4	2.5	.2	.0	.0	.0	3.2
3-4	.0	.5	1.0	.0	.0	.0	1.5
5-6	.0	.2	.8	.0	.0	.0	1.1
7	.0	.0	.4	.4	.0	.0	.8
8-9	.0	.0	.0	.0	.2	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.2	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.9	4.8	2.5	.4	.2	.2	10.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	2.4	.0	.0	.0	.0	3.2
1-2	.0	1.4	.5	.0	.0	.0	1.9
3-4	.0	.2	1.0	.0	.0	.0	1.2
5-6	.0	.0	.5	.1	.0	.0	.6
7	.0	.2	.1	.3	.0	.0	.6
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.3	2.1	.8	.1	.0	8.1

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0030 SOUTH ISLAND (NW)
42.0S 169.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.4	.0	.0	.0	.0	1.0	1.2	1.2	.1	.0	.0	.0	2.4
1-2	.2	2.3	.4	.0	.0	.0	2.9	.2	2.4	.6	.0	.0	.0	3.2
3-4	.0	.6	2.0	.0	.0	.0	2.7	.0	.6	3.1	.2	.0	.0	4.0
5-6	.0	.0	1.3	.4	.0	.0	1.7	.0	.1	2.8	.4	.0	.0	3.3
7	.0	.0	.2	.2	.2	.0	.6	.0	.1	1.5	1.2	.2	.0	3.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.5	.0	.0	1.2
10-11	.0	.0	.2	.0	.2	.0	.5	.0	.0	.2	.8	.2	.0	1.3
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.5	.5	.0	.0	1.0
13-16	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.3	.0	.3
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.4	4.1	.8	.8	.0	10.0	1.4	4.4	9.5	4.1	.8	.0	20.2

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	1.7	1.5	.4	.0	.0	.0	3.5	.0	.2	.1	.0	.0	.0	.3	
1-2	.2	1.9	1.0	.0	.0	.0	3.2	.1	1.2	.5	.0	.0	.0	1.8	
3-4	.0	1.4	2.1	.5	.0	.0	3.9	.0	.1	1.1	.0	.0	.0	1.2	
5-6	.0	.8	1.2	.8	.0	.0	2.9	.0	.2	.3	.2	.1	.0	.9	
7	.0	.6	2.1	.7	.0	.0	3.4	.0	.1	.2	.0	.0	.0	.2	
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.5	.0	.0	.5	
10-11	.0	.0	.2	.4	.0	.0	.6	.0	.0	.0	.1	.2	.0	.3	
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.9	6.2	7.2	3.0	.2	.0	18.6	.1	1.8	2.2	.8	.6	.0	5.4	90.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	15.9	9.6	.5	.0	.0	.0	26.0	
1-2	1.9	16.2	3.3	.0	.0	.0	21.3	
3-4	.2	4.4	12.4	.7	.0	.0	17.8	
5-6	.0	2.1	8.2	2.3	.5	.0	13.1	
7	.0	1.2	5.6	3.3	.7	.0	10.8	
8-9	.0	.0	1.2	1.6	.2	.0	3.0	
10-11	.0	.0	.7	1.4	.9	.0	3.0	
12	.0	.0	.5	1.2	.0	.0	1.6	
13-16	.0	.0	.0	.2	.9	.0	1.2	
17-19	.0	.0	.0	.7	.0	.2	.9	
20-22	.0	.0	.0	.0	.7	.0	.7	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.5	.0	.5	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	18.0	33.5	32.3	11.5	4.4	.2	100.0	427

PERIOD: (OVER-ALL) 1952-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.0	3.1	2.9	3.8	3.6	.9	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	98	4
6-7	.0	.4	2.7	5.2	6.1	2.0	2.2	.7	1.6	.2	.4	.7	.0	.0	.0	.0	.0	.0	.0	99	8
8-9	.0	.4	1.1	2.5	4.9	3.1	2.7	2.5	1.6	1.6	1.3	.2	.0	.0	.0	.0	.0	.0	.0	98	10
10-11	.0	.4	.2	.9	2.7	2.7	1.3	1.6	.9	.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	53	9
12-13	.0	.0	3.1	2.0	1.1	.9	.7	.4	.9	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	44	8
>13	.0	.0	.0	.7	.9	.2	.9	.0	.7	.4	.4	.0	.2	.0	.0	.0	.0	.0	.0	29	12
INDET	4.0	.0	.2	.9	1.1	.2	.0	.2	.0	.2	.7	.0	.0	.0	.0	.0	.0	.0	.0	34	5
TOTAL	36	20	46	80	91	45	40	26	25	18	17	5	2	0	0	0	0	0	0	448	7
PCT	8.1	4.5	10.3	17.9	20.4	10.1	9.0	5.8	5.6	2.9	3.8	1.1	.4	.0	.0	.0	.0	.0	.0	100.0	

MAY

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1863-1977

AREA 0030 SOUTH ISLAND (NW)
41.5S 169.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	16.5	6.0	4.5	.0	.0	.0	.0	25.8	13.5	1.5	1.9	.0	.0	.0		57.3
NE	13.3	2.0	3.7	.0	.0	.0	.0	18.9	6.6	.3	1.3	.0	.0	.0		72.8
E	3.8	3.8	8.4	.0	.0	.0	.0	16.0	1.9	1.1	3.1	.0	.0	.0		78.2
SE	6.8	.0	6.2	.0	.0	.0	.0	10.3	.0	.0	8.2	.0	.0	.0		81.5
S	.0	.9	2.4	.0	.0	.0	.0	3.3	.0	.0	2.8	.0	1.4	.0		92.4
SW	4.0	6.3	.5	.0	.0	.0	.0	10.9	8.1	.0	.7	.0	1.6	.0		78.8
W	9.4	2.3	3.1	.0	.0	.0	.0	14.9	7.4	2.3	.0	.0	.0	.0		75.4
NW	12.9	8.3	10.6	.0	.0	.0	.0	29.5	7.4	5.5	.5	.0	1.8	.0		60.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	4.8	.0	.0	.0	.0	.0	.0	4.8	.0	.0	.0	.0	.0	.0		95.2
TOT PCT	8.0	4.0	4.0	.0	.0	.0	.0	15.4	6.1	1.2	1.7	.0	.7	.0		75.4
TOT OBS:	602															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.2	2.7	4.1	.0	.0	.0	.0	13.0	4.8	.0	2.1	.0	.7	.0		79.5
06&09	5.8	4.7	1.8	.0	.0	.0	.0	12.3	5.3	1.2	1.8	.0	1.8	.0		78.4
12&15	13.8	5.4	5.4	.0	.0	.0	.0	22.3	6.2	3.1	3.1	.0	.0	.0		66.2
18&21	8.9	3.4	5.0	.0	.0	.0	.0	16.8	7.3	1.7	1.1	.0	.0	.0		74.3
TOT PCT	8.5	4.0	4.0	.0	.0	.0	.0	15.8	5.9	1.4	1.9	.0	.6	.0		74.9
TOT OBS:	626															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	3.2	4.9	1.8	.5	.1		11.1	15.7	10.4	.0	12.3	13.7	10.4	7.5	11.2	10.7
NE	1.4	4.4	3.7	2.6	.7	*		12.7	15.0	16.5	.0	14.8	11.3	10.4	10.0	12.6	1.4
E	.8	6.0	2.1	1.8	.7	.1		11.5	13.8	13.4	20.0	7.9	9.8	12.3	.0	12.3	15.5
SE	.6	3.2	1.9	.6	.0	.0		6.2	10.6	2.7	.0	2.3	6.9	12.1	2.5	7.3	11.4
S	.3	3.3	3.6	1.0	.1	.0		8.4	13.3	8.3	.0	3.0	10.8	6.3	32.5	12.4	10.5
SW	.5	7.1	7.5	5.3	2.7	.9		24.0	19.2	24.0	45.0	31.1	18.6	21.5	17.5	21.1	24.3
W	.6	5.1	4.4	3.3	.8	.3		14.5	16.6	16.1	35.0	14.8	15.2	15.4	27.5	10.1	15.7
NW	.6	2.6	3.7	1.2	*	.0		8.3	12.9	6.7	.0	8.0	13.7	9.2	2.5	8.1	8.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.3							3.3	.0	1.9	.0	5.7	.0	2.3	.0	5.0	2.9
TOT OBS	61	240	219	121	38	10	689		15.1	157	5	140	51	130	10	161	35
TOT PCT	8.9	34.8	31.8	17.6	5.5	1.5		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.1	4.3	3.4	1.0	.4		11.1	15.7	10.0	12.7	10.2	11.1
NE	2.8	5.1	2.8	2.0	.1		12.7	15.0	16.0	13.9	10.4	10.6
E	3.1	4.6	2.5	.9	.3		11.5	13.8	13.6	8.4	11.4	12.8
SE	1.9	3.1	1.1	.1	.0		6.2	10.6	2.6	3.5	11.4	8.0
S	1.6	4.0	2.5	.3	.0		8.4	13.3	8.0	5.1	8.2	12.0
SW	3.0	9.1	6.7	3.1	2.0		24.0	19.2	24.7	27.7	21.3	21.7
W	2.3	5.6	4.4	1.6	.6		14.5	16.6	16.7	14.9	16.3	11.1
NW	1.7	4.0	2.6	.1	.0		8.3	12.9	6.5	9.6	8.8	8.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.3						3.3	.0	1.9	4.2	2.1	4.6
TOT OBS	191	274	178	63	23	689		15.1	162	191	140	196
TOT PCT	21.9	39.8	25.8	9.1	3.3		100.0		100.0	100.0	100.0	100.0

MAY

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1863-1977

AREA 0030 SOUTH ISLAND (NW)
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.9	6.2	35.2	30.2	19.1	4.3	3.1	15.7	100.0	162
06&09	4.2	4.7	35.6	29.8	18.3	6.3	1.0	15.1	100.0	191
12&15	2.1	6.4	37.1	30.7	17.1	5.7	.7	14.6	100.0	140
18&21	4.6	5.1	32.1	35.7	15.8	5.6	1.0	15.0	100.0	196
TOT	23	38	240	219	121	38	10	15.1		689
PCT	3.3	5.5	34.8	31.8	17.6	5.5	1.5		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OVCST	TOTAL OBS	MEAN CLOUD COVER
N	.8	.8	2.3	86.1		6.8
NE	1.9	.4	4.4	7.3		6.2
E	3.6	.4	5.6	2.8		4.8
SE	2.2	.7	.6	1.0		3.5
S	3.1	2.5	2.4	.2		3.5
SW	5.1	6.0	8.1	2.9		4.5
W	2.5	3.1	6.8	2.2		5.2
NW	1.3	.7	3.4	2.5		5.6
VAR	.0	.0	.0	.0		.0
CALM	4.2	.0	.6	.0		1.3
TOT OBS	83	49	115	88	335	5.0
TOT PCT	24.8	14.6	34.3	26.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.7	.2	3.1	4.4	.7	.0	.0	.0	.0	2.5	
NE	1.2	.0	.7	.4	5.1	1.9	.6	.0	.3	.0	3.9	
E	.0	.0	.3	1.7	2.7	.9	.0	.3	.6	.0	5.7	
SE	.0	.0	.0	.3	1.2	.0	.0	.0	.1	.0	3.0	
S	.0	.0	.0	.3	1.3	.5	.0	.0	.2	.0	5.9	
SW	.0	.0	.6	2.4	4.9	1.0	.6	.0	.0	.0	12.2	
W	.5	.0	.2	2.5	3.0	1.2	.0	.0	.0	.6	6.6	
NW	.1	.1	.7	.7	2.2	.4	.0	.0	.0	.0	3.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.3	.3	.0	.0	.0	4.2	
TOT OBS	7	3	9	38	83	23	5	1	4	2	160	335
TOT PCT	2.1	.9	2.7	11.3	24.8	6.9	1.5	.3	1.2	.6	47.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >500YD	* OR >0
* OR >4500	1.2	1.7	1.7	1.7	1.7	1.7	1.7	1.7
* OR >5000	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
* OR >3500	2.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5
* OR >2000	8.4	10.2	10.5	10.5	10.5	10.5	10.5	10.5
* OR >1000	23.5	31.7	34.3	34.6	34.6	34.6	34.6	34.6
* OR >400	28.8	41.9	45.9	46.8	47.1	47.1	47.1	47.1
* OR >300	29.4	44.2	48.8	49.7	50.0	50.0	50.0	50.0
* OR >150	29.4	45.1	49.7	50.6	50.9	50.9	50.9	50.9
* OR > 0	29.7	45.9	51.2	52.3	52.9	52.9	52.9	52.9
TOTAL	102	158	176	180	182	182	182	182

TOTAL NUMBER OF OBS: 344 PCT FREQ NH <5/8: 47.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
9.9	9.7	9.9	9.0	7.8	7.3	9.2	11.4	25.9	1.5	413

MAY

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1863-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	PCP	.4	.0	.0	.0	.0	.2	.0	.1	.0	.0	.7	
	NO PCP	.1	.2	.2	.4	.0	.2	.0	.0	.0	.0	1.2	
	TOT %	.5	.2	.2	.4	.0	.3	.0	.1	.0	.0	1.8	
1<2	PCP	.9	.4	.2	.0	.0	.2	.1	.0	.0	.0	1.2	
	NO PCP	.5	.0	.0	.0	.0	.2	.1	*	.0	.0	.8	
	TOT %	.8	.4	.2	.0	.0	.4	.2	*	.0	.0	2.0	
2<5	PCP	.7	.7	.4	.0	.0	.6	.2	.0	.0	.2	2.8	
	NO PCP	.2	.5	.0	.0	.2	.3	.4	.2	.0	.0	1.7	
	TOT %	.9	1.2	.4	.0	.2	.9	.6	.2	.0	.2	4.5	
5<10	PCP	.8	1.1	.8	.6	.1	1.2	1.0	2.3	.0	.0	8.0	
	NO PCP	3.6	3.0	1.9	2.0	3.0	7.8	4.7	2.9	.0	.0	28.3	
	TOT %	4.5	4.2	2.7	2.5	3.0	9.0	5.7	4.6	.0	.0	36.3	
10+	PCP	.6	.2	.3	*	.2	.4	.8	.2	.0	.0	2.8	
	NO PCP	3.9	6.3	6.9	3.1	5.4	12.5	7.2	3.9	.0	3.3	52.4	
	TOT %	4.5	6.4	7.3	3.1	5.6	12.9	7.9	4.1	.0	3.3	55.2	
	TOT OBS												601
	TOT PCT	11.1	12.5	10.9	6.1	8.8	23.5	14.6	9.0	.0	3.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.1	.0	.0	.0	.0	.0	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.1	.4	.0	.0	.0	.0	.0	.0	.5	
	4-10	.1	.1	.2	.0	.0	.2	.0	.0	.0		.5	
	11-21	.2	.0	.0	.0	.0	.0	.0	.1	.0		.3	
	22+	.2	.2	.0	.0	.0	.2	.0	.0	.0		.5	
	TOT %	.5	.2	.2	.4	.0	.3	.0	.1	.0	.0	1.8	
1<2	0-3	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.2	.0	.0	.0	.0	.2	.1	*	.0		.5	
	22+	.6	.4	.2	.0	.0	.2	.0	.0	.0		1.3	
	TOT %	.8	.4	.2	.0	.0	.4	.2	*	.0	.0	2.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.2	.5	.0	.0	.0	.0	.3	.0	.0		1.0	
	11-21	.5	.2	.0	.0	.2	.2	.0	.2	.0		1.2	
	22+	.2	.5	.4	.0	.0	.7	.3	.0	.0		2.2	
	TOT %	.9	1.2	.4	.0	.2	.9	.6	.2	.0	.2	4.5	
5<10	0-3	.4	.2	.0	.1	.1	.2	.2	.2	.0	.0	1.3	
	4-10	1.5	1.6	1.7	1.2	1.3	2.6	1.8	1.9	.0		13.6	
	11-21	1.8	1.2	.2	1.1	1.4	2.6	1.7	1.7	.0		11.8	
	22+	.7	1.1	.7	.2	.2	3.6	2.1	.8	.0		9.4	
	TOT %	4.4	4.1	2.7	2.5	3.0	9.0	5.7	4.6	.0	.0	36.1	
10+	0-3	.3	1.0	.8	.2	.3	.2	.4	.5	.0	3.3	7.1	
	4-10	1.4	2.6	3.4	2.1	2.4	4.7	3.2	1.2	.0		21.0	
	11-21	1.9	2.2	1.9	.7	2.1	3.9	2.5	1.8	.0		17.1	
	22+	.9	.5	1.2	.3	.9	4.1	1.7	.6	.0		10.3	
	TOT %	4.5	6.4	7.4	3.3	5.6	13.0	7.9	4.1	.0	3.3	55.5	
	TOT OBS												604
	TOT PCT	11.1	12.5	11.0	6.2	8.8	23.5	14.5	9.0	.0	3.5	100.0	

MAY

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1863-1977

AREA 0030 SOUTH ISLAND (NW)
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.9	3.5	10.6	24.8	8.0	2.7	.0	2.7	.0	53.1	46.9	113
06&09	2.1	1.0	2.1	10.4	29.2	2.1	2.1	.0	.0	.0	49.0	51.0	96
12&15	2.7	1.4	1.4	13.7	16.4	8.2	.0	.0	.0	1.4	45.2	54.8	73
18&21	3.5	.0	3.5	12.9	17.6	8.2	.0	1.2	1.2	1.2	49.4	50.6	85
TOT	7	3	10	43	83	24	5	1	4	2	182	185	367
PCT	1.9	.8	2.7	11.7	22.6	6.5	1.4	.3	1.1	.5	49.6	50.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	.7	1.4	6.2	29.7	62.1	145
06&09	.6	2.3	2.3	5.8	42.1	46.8	171
12&15	.0	3.1	.0	3.8	33.6	59.5	131
18&21	.0	1.1	3.9	2.8	36.5	55.8	181
TOT	1	11	13	29	225	349	628
PCT	.2	1.8	2.1	4.6	35.8	55.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	5.6	19.4	36.1	44.4	108
06&09	2.3	5.8	23.3	31.4	45.3	86
12&15	2.8	5.6	21.1	25.4	53.5	71
18&21	3.8	7.6	21.5	31.6	46.8	79
TOT	7	21	73	109	162	344
PCT	2.0	6.1	21.2	31.7	47.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.2	.0	.2	.0	2	.5
60/64	.0	.0	.0	.0	.9	3.8	6.6	9.3	92	20.8
55/59	.0	.0	.5	.2	5.9	12.9	19.2	14.3	234	52.9
50/54	.0	.0	.2	.7	3.2	5.0	7.5	6.6	102	23.1
45/49	.0	.0	.0	.0	.2	.9	1.6	.0	12	2.7
TOTAL	0	0	3	4	46	100	156	133	442	100.0
PCT	.0	.0	.7	.9	10.4	22.6	35.3	30.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.2	.0	.0	.0	.0	.2	.0	.0	.0
3.7	3.6	3.0	.5	.8	1.3	4.6	2.6	.0	.7
6.1	6.9	6.8	2.3	3.1	11.7	8.4	3.8	.0	1.8
.6	2.4	2.9	1.8	3.6	6.4	3.1	.4	.0	1.8
.0	.0	.2	.0	.5	1.5	.5	.0	.0	.0
10.5	13.2	13.0	4.5	8.0	20.9	16.8	6.8	.0	4.3

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	66	65	64	58	52	46	45	57.6	163
06&09	64	63	62	57	51	48	38	57.1	185
12&15	64	63	61	57	50	48	48	56.7	138
18&21	64	63	61	57	50	46	45	56.2	193
TOT	66	64	62	57	51	47	38	56.9	679

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	.8	14.5	18.5	41.1	25.0	83	124
06&09	.0	2.7	9.0	29.7	32.4	25.2	82	111
12&15	.0	2.1	5.2	19.8	33.3	39.6	86	96
18&21	.0	.8	10.9	21.9	33.6	32.8	84	128
TOT	0	7	48	103	162	139	84	459

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1863-1977

AREA 0030 SOUTH ISLAND (NW)
41.5S 169.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	TOT	% FOG	NO FOG
14/16	.0	.0	.0	.0	.4	.0	2	.0	.4
11/13	.0	.0	.0	.2	.0	.0	1	.0	.2
9/10	.0	.0	.0	.0	.2	.0	1	.0	.2
6	.0	.0	.0	.0	.2	.0	1	.0	.2
5	.0	.0	.2	.2	.8	.2	7	.0	1.4
4	.0	.2	.2	.8	1.4	.0	13	.0	2.5
3	.0	.0	.4	1.2	1.4	.0	15	.0	2.9
2	.0	.0	.6	2.5	1.4	.0	23	.2	4.3
1	.0	.0	1.2	4.1	1.9	.2	38	.2	7.2
0	.2	.2	2.5	12.0	2.7	.0	91	.2	17.5
-1	.0	.4	2.5	8.7	2.1	.0	71	.4	13.4
-2	.0	.6	5.4	6.4	1.2	.0	70	.0	13.6
-3	.2	.2	5.4	3.9	.2	.0	51	.2	9.7
-4	.0	1.0	5.2	1.6	.0	.0	40	.2	7.6
-5	.4	1.9	5.6	1.9	.2	.0	53	.0	10.3
-6	.4	1.0	1.9	.4	.0	.0	19	.0	3.7
-7/-8	.0	.8	1.7	.0	.0	.0	13	.0	2.5
-9/-10	.0	.4	.2	.0	.0	.0	3	.0	.6
-11/-13	.4	.2	.0	.0	.0	.0	3	.0	.6
TOTAL	8	35	172	226	72	2	515	7	508
PCT	1.6	6.8	33.4	43.9	14.0	.4	100.0	1.4	98.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.3	.0	.0	.0	.0	.9
1-2	.0	.7	.3	.0	.0	.0	1.0
3-4	.0	.7	1.5	.0	.0	.0	2.1
5-6	.0	.2	1.6	.5	.0	.0	2.4
7	.0	.0	2.0	.3	.0	.0	2.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.5	.3	.0	.8
12	.0	.0	.0	.6	.0	.0	.6
13-16	.0	.0	.0	.3	.2	.0	.6
17-19	.0	.2	.0	.0	.3	.2	.8
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.1	5.4	2.2	.9	.2	11.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.0	1.3	.0	.0	.0	.0	3.3
1-2	.0	2.2	.2	.0	.0	.0	2.4
3-4	.0	1.6	2.2	.0	.0	.0	3.8
5-6	.0	.5	2.0	.0	.0	.0	2.5
7	.0	.0	1.0	.3	.0	.0	1.3
8-9	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.3	.1	.0	.0	.4
12	.0	.0	.0	.2	.3	.0	.5
13-16	.0	.0	.0	.4	.4	.0	.8
17-19	.0	.1	.0	.0	.7	.1	.9
20-22	.0	.0	.0	.3	.0	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.0	5.7	5.7	1.7	1.5	.1	16.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.6	1.3	.0	.0	.0	.0	2.9
1-2	.0	2.3	.5	.0	.0	.0	2.8
3-4	.0	1.0	1.2	.0	.0	.0	2.2
5-6	.0	.2	.4	.2	.0	.0	1.3
7	.0	.0	.3	.7	.0	.0	1.0
8-9	.0	.0	.0	.2	.3	.0	.6
10-11	.0	.6	.0	.3	.0	.0	.8
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.3	.0	.6
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.3	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.6	4.8	2.9	2.0	.9	.3	12.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.0	.0	.0	.0	.0	1.0
1-2	.3	1.1	.0	.0	.0	.0	1.4
3-4	.0	.1	.3	.0	.0	.0	.4
5-6	.0	.0	.3	.2	.0	.0	.5
7	.0	.0	.7	.0	.0	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.1	1.4	.2	.0	.0	4.0

PERIOD: (OVER-ALL) 1963-1977

MAY

AREA 0030 SOUTH ISLAND (NW)
41.5S 169.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.8	.0	.0	.0	.0	1.8
1-2	.0	2.0	.7	.0	.0	.0	2.7
3-4	.0	.5	1.2	.0	.0	.0	1.7
5-6	.0	.0	1.1	.6	.2	.0	2.0
7	.0	.0	.6	.0	.0	.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.3	3.6	.9	.2	.0	9.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.5	.0	.0	.0	.0	.6
1-2	.7	3.0	.1	.0	.0	.0	3.7
3-4	.0	1.4	3.0	.7	.0	.0	5.0
5-6	.0	.7	2.5	1.3	.7	.0	5.3
7	.0	.0	.4	1.6	.1	.0	2.1
8-9	.0	.0	.3	1.0	.8	.0	2.1
10-11	.0	.0	.0	.1	.0	.1	.2
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.3	.0	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.9	6.4	5.0	1.6	.1	19.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.7	.0	.0	.0	.0	1.1
1-2	.0	2.4	1.5	.0	.0	.0	3.9
3-4	.0	1.5	.6	.0	.0	.0	2.0
5-6	.0	.6	1.7	1.0	.0	.0	3.3
7	.0	.0	1.2	.0	.2	.0	1.5
8-9	.0	.0	.0	.3	.5	.0	.8
10-11	.0	.0	.0	.2	.0	.2	.5
12	.0	.0	.0	.6	.0	.0	.6
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.3	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.0	5.0	2.4	.7	.2	14.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.1	.0	.0	.0	.0	.0	1.1	
1-2	.0	1.4	.0	.0	.0	.0	1.4	
3-4	.0	.5	1.7	.0	.0	.0	2.2	
5-6	.0	.0	1.2	.2	.0	.0	1.4	
7	.0	.0	.3	1.0	.0	.0	1.3	
8-9	.0	.0	.0	.3	.0	.0	.3	
10-11	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.1	.0	.0	.1	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	1.9	3.3	1.6	.0	.0	7.8	95.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	11.3	7.1	.0	.0	.0	.0	18.3	
1-2	1.3	14.8	3.2	.0	.0	.0	19.3	
3-4	.0	7.1	11.6	.6	.0	.0	19.3	
5-6	.0	2.3	11.3	3.9	1.0	.0	18.3	
7	.0	.0	6.4	3.9	.3	.0	10.6	
8-9	.0	.0	.3	2.3	1.6	.0	4.2	
10-11	.0	.0	.3	1.3	.3	.3	2.3	
12	.0	.0	.0	1.9	.3	.0	2.3	
13-16	.0	.3	.0	1.3	1.0	.0	2.6	
17-19	.0	.3	.0	.3	1.3	.3	2.3	
20-22	.0	.0	.0	.3	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.3	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.5	31.8	33.1	15.8	5.8	1.0	100.0	311

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.2	5.5	4.1	4.6	1.7	2.3	2.0	2.0	.9	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	86	5
6-7	.0	.3	1.7	2.9	6.1	2.9	3.8	1.5	2.9	1.7	.3	.3	.0	.0	.0	.0	.0	.0	.0	84	9
8-9	.0	.0	1.2	2.6	5.5	3.5	4.7	2.0	2.6	.9	.9	.6	.0	.0	.0	.0	.0	.0	.0	84	10
10-11	.0	.0	1.2	.8	2.6	.3	1.2	.3	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	9
12-13	.0	.0	1.5	1.5	.6	.0	.6	.9	.6	.0	.3	.3	.0	.0	.3	.0	.0	.0	.0	22	10
>13	.0	.0	.0	.0	1.2	.6	.6	.0	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	10
INDET	3.2	.6	.9	.6	.9	1.5	1.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	4
TOTAL	22	22	36	30	44	38	46	24	34	12	5	4	0	0	1	0	0	0	0	344	8
PCT	6.4	6.4	10.5	10.5	18.6	11.0	13.4	7.0	9.9	3.5	1.5	1.2	.0	.0	.3	.0	.0	.0	.0	100.0	

JUNE

PERIOD: (PRIMARY) 1935-1977
(OVER-ALL) 1863-1977

AREA 0030 SOUTH ISLAND (NW)
41.7S 169.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	15.3	2.6	2.8	.0	.0	.0	.0	20.8	4.9	2.1	1.4	.0	.0	.0	.0	70.8
NE	15.8	6.8	4.5	.0	.0	.0	.0	24.9	9.6	.0	.0	.0	.0	.0	.0	69.5
E	15.0	1.4	5.7	.0	.0	.0	.0	22.1	3.9	1.4	2.1	.0	.0	.0	.0	70.4
SE	3.3	.0	13.0	.0	.0	.0	.0	16.3	3.9	.0	2.4	.0	.0	.0	.0	78.0
S	1.4	1.4	1.4	.0	.0	.0	.0	4.1	1.4	.0	2.4	.0	.0	.0	.0	92.2
SW	2.4	1.1	1.1	.0	.0	.0	.0	3.5	6.1	.0	2.1	1.1	.0	.0	.0	97.2
W	4.0	8.4	1.2	.0	.0	.0	.0	13.6	9.8	2.3	6.9	.0	.0	.0	.0	67.6
NW	3.1	6.7	7.4	.0	.0	.0	.0	17.2	2.5	.6	1.2	.0	.0	.0	.0	78.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	9.1	9.1	.0	.0	.0	.0	.0	18.2	.0	.0	.0	.0	.0	.0	.0	81.8
TOT PCT	6.8	3.7	3.5	.0	.0	.0	.0	13.6	4.0	.8	2.7	.2	.0	.0	.0	77.8
TOT OBS:	487															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	8.5	4.3	1.7	.0	.0	.0	.0	13.7	3.4	.0	3.4	.9	.0	.0	.0	78.6
06&09	1.3	2.6	2.6	.0	.0	.0	.0	6.6	5.3	.0	2.6	.0	.0	.0	.0	85.4
12&15	5.3	3.5	4.4	.0	.0	.0	.0	13.2	3.5	2.6	1.8	.0	.0	.0	.0	78.9
18&21	12.9	4.0	4.8	.0	.0	.0	.0	21.0	6.5	.8	2.4	.0	.0	.0	.0	69.4
TOT PCT	6.7	3.6	3.4	.0	.0	.0	.0	13.2	4.7	.8	2.6	.2	.0	.0	.0	78.5
TOT OBS:	506															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	2.2	3.2	.3	.4	.0		6.6	13.1	9.6	16.7	7.5	3.8	5.6	.0	5.3	5.0
NE	.2	2.7	2.5	2.1	.4	.9		8.8	19.9	8.5	4.2	4.7	2.9	11.0	11.1	12.0	16.0
E	.7	4.3	5.9	2.1	.7	.2		13.8	15.3	11.2	12.5	14.0	14.4	13.8	30.6	14.7	14.0
SE	.5	2.6	2.1	1.1	.2	.0		6.4	13.5	5.1	.0	6.5	12.5	5.2	2.8	8.0	2.0
S	2.3	6.0	5.0	1.6	.4	.0		15.3	11.9	15.9	16.7	15.7	14.4	16.5	22.2	13.2	14.0
SW	1.4	6.3	7.5	4.1	1.6	.0		21.0	16.1	23.0	4.2	23.5	24.0	22.1	13.9	16.8	14.0
W	.7	3.8	7.4	5.5	.7	.0		18.2	17.9	16.9	25.0	14.2	23.1	17.5	8.3	20.8	26.0
NW	.0	1.9	3.6	1.6	.5	.0		7.6	17.6	5.9	20.8	10.3	2.9	6.7	11.1	8.4	9.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3							2.3	.0	4.1	.0	3.4	1.9	1.7	.0	.8	.0
TOT OBS	49	170	212	105	28	6	570		15.4	123	6	116	52	120	9	119	25
TOT PCT	8.6	29.8	37.2	18.4	4.9	1.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.8	3.3	1.1	.5	.0		6.6	13.1	9.9	6.4	5.2	5.2
NE	1.5	3.4	2.1	.9	.9		8.8	19.9	8.3	4.2	11.0	12.7
E	2.4	6.8	2.7	1.5	.4		13.8	15.3	11.2	14.1	14.9	14.6
SE	1.4	2.9	1.8	.5	.0		6.4	13.5	4.8	8.3	5.0	6.9
S	4.8	6.9	2.6	1.0	.0		15.3	11.9	15.9	15.3	16.9	13.4
SW	3.8	7.7	6.5	2.8	.2		21.0	16.1	22.1	23.7	21.5	16.3
W	1.5	7.8	5.4	3.0	.5		18.2	17.9	17.2	17.0	16.9	21.7
NW	.3	3.7	2.4	1.0	.2		7.6	17.6	6.6	8.0	7.0	8.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.3						2.3	.0	3.9	3.0	1.6	.7
TOT OBS	113	242	139	64	12	570		15.4	129	188	129	144
TOT PCT	19.8	42.5	24.4	11.2	2.1		100.0		100.0	100.0	100.0	100.0

JUNE

PERIOD: (PRIMARY) 1935-1977
(OVER-ALL) 1863-1977

AREA 0030 SOUTH ISLAND (NZ)
41.7S 169.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.9	7.0	27.9	34.1	22.5	3.1	1.6	15.5	100.0	129
06&09	3.0	5.4	32.1	38.1	16.7	4.8	.0	14.4	100.0	168
12&15	1.6	8.5	20.4	37.2	19.4	6.2	.8	15.7	100.0	129
18&21	.7	4.9	31.9	38.9	16.0	5.6	2.1	16.1	100.0	144
TOT	13	36	170	212	105	28	6	15.4		570
PCT	2.3	6.3	29.8	37.2	18.4	4.9	1.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.2	.2	2.7	4.4		6.2
NE	2.9	.9	3.2	2.9		4.9
E	2.5	2.3	3.6	5.5		5.1
SE	1.4	.4	1.7	1.5		5.1
S	5.1	1.9	7.0	2.5		4.5
SW	5.1	3.7	6.0	3.8		4.6
W	2.0	2.3	7.0	3.9		5.3
NW	1.1	.7	3.7	2.8		6.0
VAR	.0	.0	.0	.9		.8
CALM	.9	.9	.9	.9		4.2
TOT OBS	77	43	116	87	323	5.1
TOT PCT	23.8	13.3	35.9	26.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.6	.0	.3	1.8	1.9	1.2	.2	.0	.0	.0	2.6	
NE	.0	.3	.6	.7	1.6	1.0	.0	.0	.0	.3	4.7	
E	.0	.6	.6	.8	1.8	3.3	.3	.3	.0	.0	7.4	
SE	.0	.0	.1	.8	1.2	.4	.1	.3	.0	.1	2.1	
S	.0	.0	.2	1.9	1.9	2.4	1.2	.0	.5	.0	8.4	
SW	.1	.0	.3	.9	2.2	3.9	.9	.0	.1	.0	10.4	
W	.2	.0	.6	2.2	2.4	.9	.3	.0	.0	.0	9.3	
NW	.0	.0	.6	1.5	2.2	.9	.2	.0	.0	.0	2.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.6	.0	.3	.3	.0	.0	1.9	
TOT OBS	3	3	11	39	51	45	11	3	2	1	160	323
TOT PCT	.9	.9	3.4	10.2	15.8	13.9	3.4	.9	.6	.3	49.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >5UYD	= OR >0
= OR >A500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >5000	1.8	2.1	2.1	2.1	2.1	2.1	2.1	2.1
= OR >3500	4.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4
= OR >2000	14.1	17.7	18.6	18.6	18.6	18.6	18.6	18.6
= OR >1000	24.9	32.6	34.4	34.4	34.4	34.4	34.4	34.4
= OR >600	29.3	41.3	44.3	44.6	44.6	44.6	44.6	44.6
= OR >300	29.9	42.8	47.3	47.9	47.9	47.9	47.9	47.9
= OR >150	30.2	43.1	47.9	48.5	48.5	48.5	48.8	48.8
= OR > 0	30.5	43.7	48.8	49.4	49.4	49.4	49.7	49.7
TOTAL	102	146	163	165	165	165	166	166

TOTAL NUMBER OF OBS: 334 PCT FREQ NH <5/8: 50.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
9.7	9.4	11.7	9.1	9.6	6.0	10.4	11.8	22.2 .5	383

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AREA 0030 SOUTH ISLAND (NW)
41.7S 169.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	PCP	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.2	.4	.4	.0	.0	.0	1.0	
	TOT %	.0	.4	.0	.0	.2	.4	.4	.0	.0	.0	1.4	
1<2	PCP	.0	.2	.2	.0	.0	.0	.0	.2	.0	.0	.6	
	NO PCP	.1	.2	.0	.0	.0	.0	.0	.1	.0	.0	.4	
	TOT %	.1	.4	.2	.0	.0	.0	.0	.3	.0	.0	1.0	
2<5	PCP	.4	.7	.4	.2	.0	.0	.2	.4	.0	.0	2.3	
	NO PCP	.2	.5	.0	.2	.4	.3	.6	.1	.0	.0	2.1	
	TOT %	.5	1.1	.4	.4	.4	.3	.8	.5	.0	.0	4.3	
5<10	PCP	.8	1.0	2.0	.6	.4	.0	1.6	.8	.0	.0	6.8	
	NO PCP	1.7	.8	1.8	1.1	2.8	5.0	6.3	2.0	.0	.0	21.6	
	TOT %	2.5	1.7	3.7	1.7	3.2	5.0	7.9	2.8	.0	.0	28.3	
10+	PCP	.4	.0	.4	.2	.2	.7	.6	.4	.0	.4	3.3	
	NO PCP	3.9	5.4	9.4	4.0	11.2	12.9	8.1	4.9	.0	1.8	61.4	
	TOT %	4.3	5.4	9.8	4.2	11.4	13.6	8.7	5.1	.0	2.3	64.7	
	TOT OBS												487
	TOT PCT	7.4	9.1	14.4	6.3	15.2	19.3	17.8	8.4	.0	2.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.2	.0	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.2	.4	.0	.0		.6	
	11-21	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.0	.2	.0	.0	.2	.2	.0	.0	.0		.6	
	TOT %	.0	.4	.0	.0	.2	.4	.4	.0	.0	.0	1.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.0	.0	.1	.0		.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.4	.2	.0	.0	.0	.0	.2	.0		.8	
	TOT %	.1	.4	.2	.0	.0	.0	.0	.3	.0	.0	1.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.1	.0	.2	.2	.1	.0	.2	.0		.8	
	11-21	.4	.1	.0	.2	.2	.0	.2	.2	.0		1.2	
	22+	.0	1.0	.4	.0	.0	.2	.6	.1	.0		2.2	
	TOT %	.5	1.1	.4	.4	.4	.3	.8	.5	.0	.0	4.3	
5<10	0-3	.2	.0	.2	.0	.0	.0	.4	.0	.0	.0	.8	
	4-10	.5	.1	1.2	.7	1.9	.6	1.4	.7	.0		7.2	
	11-21	1.2	.8	.7	.8	1.1	1.7	3.2	.8	.0		10.2	
	22+	.6	.9	1.6	.2	.2	2.8	2.8	1.0	.0		10.0	
	TOT %	2.5	1.7	3.7	1.7	3.2	5.0	7.9	2.5	.0	.0	28.2	
10+	0-3	.4	.3	.6	.6	2.5	1.6	.4	.0	.0	2.2	8.6	
	4-10	1.8	2.6	3.3	1.7	4.1	4.6	1.8	1.2	.0		21.3	
	11-21	1.8	1.7	4.9	1.3	3.4	4.9	3.2	2.7	.0		23.7	
	22+	.2	.8	1.0	.8	1.4	2.5	3.4	1.2	.0		11.2	
	TOT %	4.2	5.4	9.8	4.3	11.4	13.5	8.8	5.1	.0	2.2	64.8	
	TOT OBS												489
	TOT PCT	7.4	9.0	14.3	6.5	15.1	19.2	17.8	8.3	.0	2.2	100.0	

JUNE

PERIOD: (PRIMARY) 1935-1977
(OVER-ALL) 1863-1977

AREA 0030 SOUTH ISLAND (NW)
41.7S 169.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.1	.0	3.2	6.4	21.1	14.7	3.2	1.1	1.1	.0	53.7	46.3	95
06&09	.0	1.0	2.9	12.7	13.7	12.7	2.0	1.0	.0	.0	46.1	53.9	102
12&15	1.3	.0	2.6	7.7	14.1	6.4	5.1	.0	.0	1.3	38.5	61.5	78
18&21	1.2	2.5	3.7	8.6	9.9	16.0	2.5	2.5	1.2	.0	48.1	51.9	81
TOT	3	3	11	34	53	45	11	4	2	1	167	189	356
PCT	.8	.8	3.1	9.6	14.9	12.6	3.1	1.1	.6	.3	46.9	53.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	3.4	1.7	5.1	27.1	62.7	118
06&09	.0	.0	.0	4.6	33.1	62.3	151
12&15	.0	1.8	1.8	2.6	23.7	70.2	114
18&21	.8	.8	.8	5.6	27.2	64.8	125
TOT	1	7	5	23	143	329	508
PCT	.2	1.4	1.0	4.5	28.1	64.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <5000YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.1	4.3	16.1	37.6	46.2	93
06&09	.0	4.3	19.6	31.5	48.9	92
12&15	1.4	4.2	13.9	27.8	58.3	72
18&21	1.3	7.8	18.2	32.5	49.4	77
TOT	3	17	57	109	168	334
PCT	.9	5.1	17.1	32.6	50.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.0	.0	1.1	1.7	1.4	15	4.2
55/59	.0	.0	.8	1.1	4.2	13.1	10.6	8.6	138	38.3
50/54	.0	.0	1.4	.6	5.3	9.4	16.4	8.3	149	41.4
45/49	.0	.0	.3	.3	3.1	5.0	5.0	2.2	57	15.8
40/44	.0	.0	.0	.0	.0	.0	.3	.0	1	.3
TOTAL	0	0	9	7	45	103	122	74	360	100.0
PCT	.0	.0	2.5	1.9	12.5	28.6	33.9	20.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.6	.7	.8	.0	.0	.0	1.0	1.0	.0	.0
4.9	3.4	5.5	1.8	3.9	6.7	7.1	5.1	.0	.0
1.5	2.6	3.3	2.6	8.1	11.6	8.1	1.7	.0	1.9
.0	.4	2.3	1.6	3.5	3.3	3.8	.3	.0	.6
.0	.0	.2	.1	.0	.0	.0	.0	.0	.0
7.0	7.2	12.1	6.1	15.6	21.6	19.9	8.1	.0	2.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	64	63	61	55	48	45	39	54.5	128
06&09	63	62	59	54	47	45	45	53.4	167
12&15	63	62	59	54	45	35	34	52.8	126
18&21	61	60	59	54	49	46	46	53.6	141
TOT	64	63	59	54	48	43	34	53.6	562

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	9.7	12.9	32.3	28.0	17.2	78	93
06&09	.0	2.8	14.7	30.2	34.0	18.9	80	106
12&15	.0	1.2	14.6	24.4	41.5	18.3	81	82
18&21	.0	3.3	7.7	28.6	30.8	29.7	83	91
TOT	0	16	46	108	124	78	80	372

JUNE

PERIOD: (PRIMARY) 1935-1977
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41.7S 169.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.3	.3	2	.0	.5
9/10	.0	.0	1.0	.0	.3	5	.0	1.3
7/8	.0	.3	.5	.0	.3	4	.0	1.0
5	.0	.5	.0	1.3	.3	8	.0	2.1
4	.0	.5	.5	.8	.8	10	.0	2.6
3	.0	.0	.5	.3	.5	5	.0	1.3
2	.0	.0	1.8	2.3	.3	17	.3	4.2
1	.0	.8	2.9	2.1	.0	22	.0	5.7
0	.5	.8	4.4	4.7	.3	41	.5	10.2
-1	.0	1.8	5.2	4.2	.3	44	1.0	10.4
-2	.3	1.8	9.1	1.8	.0	50	1.0	12.0
-3	.3	2.9	6.3	.3	.0	37	.0	9.7
-4	1.0	3.7	6.5	1.0	.0	47	.0	12.3
-5	1.3	4.7	3.7	.0	.0	37	.0	9.7
-6	.8	3.1	1.6	.3	.0	22	.0	5.7
-7/-8	2.1	.8	1.0	.3	.0	16	.0	4.2
-9/-10	1.3	1.3	.5	.0	.0	12	.0	3.1
-11/-13	.3	.8	.0	.0	.0	4	.0	1.0
TOTAL	90	91	175	75	12	383	11	372
PCT	7.8	23.8	45.7	19.6	3.1	100.0	2.9	97.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.3	.0	.0	.0	.0	.6
1-2	.0	1.3	.4	.0	.0	.0	1.7
3-4	.4	.7	1.7	.0	.0	.0	2.8
5-6	.0	.0	1.2	.0	.0	.0	1.2
7	.0	.0	.7	.3	.4	.0	1.3
8-9	.0	.0	.4	.4	.0	.0	.7
10-11	.0	.0	.0	.0	.4	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.3	4.3	.6	.7	.0	8.7

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.5	.0	.0	.0	.0	1.5
1-2	.0	.8	.4	.0	.0	.0	1.2
3-4	.4	.7	1.4	.0	.0	.0	2.5
5-6	.0	.4	.4	1.1	.0	.0	1.9
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.7	.0	.8
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.7	.7
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.4	.4
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.4	2.3	1.1	.7	1.1	8.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.4	.4	.0	.0	.0	2.1
1-2	.0	2.7	.0	.0	.0	.0	2.7
3-4	.0	.4	2.5	.7	.0	.0	3.6
5-6	.0	.4	1.1	.0	.0	.0	1.4
7	.0	.0	.4	.4	.0	.0	.7
8-9	.0	.4	.3	1.1	.4	.0	2.1
10-11	.0	.4	.4	.4	.0	.0	1.1
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.4	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	5.5	4.9	2.9	.7	.0	14.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.4	.5	.4	.0	.0	.0	1.3
3-4	.0	.0	1.6	.0	.0	.0	1.6
5-6	.0	.4	.4	.7	.0	.0	1.4
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.2	.0	.4	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.1	2.4	1.2	.0	.0	6.0

PERIOD: (OVER-ALL) 1963-1977

JUNE

AREA 0030 SOUTH ISLAND (NW)
41.7S 169.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.7	1.4	.0	.0	.0	.0	4.1
1-2	.4	2.0	.4	.0	.0	.0	2.9
3-4	.0	.9	2.2	.0	.0	.0	3.1
5-6	.0	1.1	1.6	.4	.0	.0	3.0
7	.0	.4	.0	.4	.0	.0	.7
8-9	.0	.5	.3	.3	.4	.0	1.4
10-11	.0	.0	.0	.0	.4	.0	.4
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.0	6.3	4.7	1.3	.7	.0	16.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.0	.9	.0	.0	.0	.0	2.9
1-2	.0	3.8	.0	.0	.0	.0	3.8
3-4	.0	.9	1.6	.1	.0	.0	2.6
5-6	.0	.0	4.0	1.1	.0	.0	5.1
7	.0	.0	1.2	1.2	.4	.0	2.7
8-9	.0	.0	.4	.4	.0	.0	.9
10-11	.0	.0	.0	.4	.1	.0	.4
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.4	.0	.4
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.0	5.6	7.2	3.2	.9	.0	18.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.6	.0	.0	.0	.0	1.3
1-2	.0	1.5	.3	.0	.0	.0	1.8
3-4	.0	.0	2.0	.9	.0	.0	2.9
5-6	.0	.0	2.8	.4	.0	.0	3.1
7	.0	.4	1.0	3.0	.0	.0	4.4
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	.9	1.0	.0	1.9
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.5	6.0	5.8	1.3	.0	16.3

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.9	.4	.0	.0	.0	1.3	
3-4	.0	.4	1.6	.4	.0	.0	2.4	
5-6	.0	.0	1.8	.0	.0	.0	1.8	
7	.0	.4	.4	.2	.4	.0	1.3	
8-9	.0	.0	.0	.0	.4	.0	.4	
10-11	.0	.0	.0	.5	.0	.0	.5	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.6	4.2	1.2	.7	.0	7.7	96.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.2	7.1	.4	.0	.0	.0	17.7	
1-2	.7	13.4	2.5	.0	.0	.0	16.6	
3-4	.7	3.9	14.5	2.1	.0	.0	21.2	
5-6	.0	2.1	13.1	3.5	.0	.0	18.7	
7	.0	1.1	3.5	5.3	1.1	.0	11.0	
8-9	.0	1.1	1.4	2.8	1.8	.0	7.1	
10-11	.0	.4	.4	2.1	1.8	.0	4.6	
12	.0	.0	.0	1.1	.0	.0	1.1	
13-16	.0	.0	.0	.0	.4	.7	1.1	
17-19	.0	.0	.0	.0	.4	.0	.4	
20-22	.0	.0	.0	.0	.4	.0	.4	
23-25	.0	.0	.0	.0	.0	.4	.4	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.7	29.0	35.7	17.0	5.7	1.1	100.0	283

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	5.6	2.0	7.3	9.9	3.3	1.7	1.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	95	4
6-7	.0	.3	2.6	4.6	4.6	6.0	4.3	.3	1.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	74	8
8-9	.0	.0	1.0	2.3	2.0	2.6	3.6	2.0	1.3	1.7	1.0	.0	.0	.0	.0	.0	.0	.0	.0	53	10
10-11	.0	.3	.0	.7	.7	1.0	.3	.7	1.7	1.0	.0	.7	.7	.0	.0	.0	.0	.0	.0	23	13
12-13	.0	.0	1.0	1.0	.3	.7	.7	.0	.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	10
>13	.0	.0	.0	.0	1.0	.3	.0	.3	.3	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	9	11
INDET	5.3	.7	1.0	.3	1.3	1.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	31	3
TOTAL	33	10	39	58	40	40	30	11	18	11	8	2	2	0	0	0	0	1	0	302	7
PCT	10.9	3.3	12.9	19.2	13.2	13.2	9.9	3.6	6.0	3.6	2.6	.7	.7	.0	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1868-1977

AREA 0030 SOUTH ISLAND (NW)
41.7S 169.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	8.0	4.6	9.2	.0	.0	.0	.0	21.6	7.4	.0	.0	.0	.0		.0	70.6
NE	18.4	3.5	3.5	.0	.0	.0	.0	23.8	.4	.0	.0	.0	.0		.0	75.8
E	6.5	.0	3.0	.0	.0	.0	.0	9.5	7.4	.0	.8	.0	.0		.0	82.1
SE	12.9	2.2	4.3	.0	.0	.0	.0	19.4	2.2	.0	3.2	.0	2.2		.0	73.1
S	6.1	10.9	.0	.0	.0	.0	1.1	18.1	2.8	.0	2.8	.0	.0		.0	76.3
SW	3.9	5.1	2.4	.0	.0	.0	.0	11.4	6.1	.8	4.1	.0	.0		.0	77.7
W	5.9	12.6	.0	.0	.0	.0	1.7	20.1	11.3	1.7	.8	.0	.0		.0	67.8
NW	5.2	5.2	4.6	.0	.0	.0	.0	14.9	1.0	.0	.0	.0	.0		.0	84.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	7.1	.0	.0	.0	.0	.0	7.1	.0	.0	.0	.0	7.1		.0	85.7
TOT PCT	7.5	5.8	3.0	.0	.0	.0	.4	16.5	4.9	.4	1.8	.0	.4		.0	76.4
TOT OBS:	571															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00603	2.9	4.3	2.9	.0	.0	.0	.0	10.1	7.2	.0	.7	.0	.7		.0	81.2
06609	8.1	7.0	3.2	.0	.0	.0	.5	18.9	3.9	.0	2.7	.0	.5		.0	74.1
12615	11.2	5.2	.0	.0	.0	.0	.9	17.2	2.6	.9	.0	.0	.0		.0	80.2
18621	7.4	6.7	4.7	.0	.0	.0	.0	18.1	6.0	.7	2.7	.0	.0		.0	72.5
TOT PCT	7.3	6.0	2.9	.0	.0	.0	.3	16.3	4.9	.3	1.7	.0	.3		.0	76.5
TOT OBS:	588															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.3	3.7	3.3	1.9	.6	.3		10.1	16.3	9.0	.0	12.0	12.9	11.4	5.0	9.8	1.7
NE	.6	3.8	4.2	1.5	1.1	.7		11.8	17.7	13.3	25.0	9.3	12.9	13.4	2.5	11.1	12.2
E	1.6	4.5	2.7	1.8	.4	.3		11.2	13.6	15.7	.0	7.6	3.0	11.8	7.5	14.5	9.9
SE	.3	3.1	3.6	1.1	.3	.1		8.4	14.4	8.9	.0	6.8	8.3	9.3	10.0	10.2	5.2
S	.6	4.5	5.2	2.1	.7	.0		15.1	13.9	10.1	.0	16.6	19.7	17.8	17.5	12.0	23.3
SW	.8	5.5	8.4	5.0	1.3	.1		21.3	17.2	25.2	25.0	20.9	16.7	17.8	25.0	19.9	29.1
W	1.0	1.9	4.4	3.2	.3	.1		11.1	17.3	8.9	18.8	17.0	9.5	8.9	22.5	10.3	6.4
NW	.3	2.8	3.4	2.1	.5	.0		9.0	16.3	6.5	31.3	6.5	17.0	8.1	10.0	10.0	12.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.0							2.0	.0	2.5	.0	3.2	.0	1.7	.0	2.3	.5
TOT OBS	51	219	249	128	35	11	689		15.6	158	4	154	66	121	10	133	43
TOT PCT	7.4	31.8	36.6	18.6	5.1	1.6		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.2	3.7	2.7	.9	.5		10.1	16.3	8.8	12.3	10.9	7.8
NE	2.2	4.6	2.7	1.2	1.0		11.8	17.7	13.6	10.3	12.6	11.4
E	3.8	3.9	2.0	1.1	.3		11.2	13.6	15.3	6.3	11.5	13.4
SE	1.7	3.9	1.8	.9	.1		8.4	14.4	8.6	7.3	9.4	8.9
S	3.1	7.2	3.4	1.4	.0		15.1	13.9	9.9	17.5	17.7	14.8
SW	3.1	8.2	6.7	2.6	.7		21.3	17.2	25.2	19.7	16.3	22.2
W	1.5	3.5	4.9	1.1	.1		11.1	17.3	9.1	14.8	9.9	9.4
NW	1.4	3.6	2.8	1.1	.1		9.0	16.3	7.1	9.7	8.2	10.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.0						2.0	.0	2.5	2.3	1.5	1.7
TOT OBS	146	266	186	71	20	689		15.6	162	220	131	176
TOT PCT	21.2	38.6	27.0	10.3	2.9		100.0		100.0	100.0	100.0	100.0

JULY

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1866-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00609	4.5	4.3	31.5	36.4	17.3	5.6	2.5	16.0	100.0	162
06609	2.3	5.0	26.4	38.6	20.5	6.4	.9	16.3	100.0	220
12615	1.5	8.4	35.9	31.3	16.0	3.8	3.1	15.1	100.0	131
18621	1.7	4.5	35.8	34.1	19.3	4.0	.6	14.8	100.0	176
TOT	14	37	219	245	128	35	11	15.6		689
PCT	2.0	5.4	31.8	35.6	18.6	5.1	1.6		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.4	1.0	2.6	6.1		6.3
NE	3.2	1.3	1.9	3.9		4.9
E	4.3	3.2	3.5	3.2		4.2
SE	2.2	1.4	2.0	1.7		4.4
S	3.1	2.6	5.8	1.7		4.4
SW	2.9	4.7	11.9	2.8		5.1
W	1.6	1.7	4.9	2.9		5.3
NW	2.5	1.3	1.7	3.0		4.9
VAR	.0	.0	.0	.0		.0
CALM	1.3	.6	.6	.3		3.5
TOT OBS	71	57	111	79	318	4.9
TOT PCT	22.3	17.9	34.9	24.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.8	2.9	3.0	.9	.3	.3	.0	.0	3.0	
NE	.6	.0	1.2	1.3	1.0	.8	.6	.3	.0	.0	4.8	
E	.2	.0	.6	1.7	1.7	.9	.3	.0	.0	.0	8.9	
SE	.6	.0	.3	.9	.9	.6	.0	.0	.0	.0	4.1	
S	.0	.0	1.2	1.1	3.7	.6	.3	.2	.0	.0	6.1	
SW	.3	.0	.4	4.4	4.4	2.4	.0	.2	.0	.0	10.1	
W	.3	.0	.3	.9	1.7	2.4	.0	.0	.0	.0	4.9	
NW	.3	.0	.3	1.4	1.0	.3	.0	.0	.0	.0	5.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.3	.3	.3	.0	.0	.0	.0	1.9	
TOT OBS	7	0	16	47	56	29	5	3	0	0	155	318
TOT PCT	2.2	.0	5.0	14.8	17.6	9.1	1.6	.9	.0	.0	48.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >8500	.0	.0	.0	.0	.0	.0	.0	.0
* OR >5000	.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2
* OR >3500	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8
* OR >2000	8.9	11.0	11.6	11.6	11.6	11.6	11.6	11.6
* OR >1000	22.0	27.8	29.7	29.7	29.7	29.7	29.7	29.7
* OR >600	30.0	39.4	43.1	43.1	43.4	44.0	44.0	44.0
* OR >300	31.5	43.1	48.0	48.0	48.3	48.9	48.9	48.9
* OR >150	31.5	43.1	48.0	48.0	48.3	48.9	48.9	48.9
* OR > 0	32.1	45.3	50.2	50.2	50.5	51.1	51.1	51.1
TOTAL	105	148	164	164	165	167	167	167

TOTAL NUMBER OF OBS: 327 PCT FREQ NH <5/8: 48.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
9.6	12.8	8.3	10.9	7.6	7.6	8.3	11.7	21.6	1.8	384

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.2	.0	.0	.0	.0	.2	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.2	.0	.0	.0	.0	.2	.0	.0	.4	
1/2<1	PCP	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5	
	NO PCP	.2	.0	.0	.2	.4	.0	.0	.0	.0	.0	.7	
	TOT %	.2	.0	.0	.2	.9	.0	.0	.0	.0	.0	1.2	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
2<5	PCP	.7	.9	.2	.2	.8	.4	.1	.2	.0	.0	3.0	
	NO PCP	.2	.4	.3	.2	.0	.5	.1	.4	.0	.0	2.1	
	TOT %	.9	1.2	.5	.4	.3	.9	.3	.6	.0	.0	5.1	
5<10	PCP	1.1	1.5	.6	.9	1.6	1.6	1.5	.6	.0	.2	9.6	
	NO PCP	2.3	2.8	1.4	1.5	3.9	5.5	2.4	2.7	.0	.2	22.6	
	TOT %	3.4	4.3	2.0	2.4	5.5	7.1	3.9	3.3	.0	.4	32.2	
10+	PCP	.4	.3	.1	.5	.4	.4	.4	.3	.0	.0	3.0	
	NO PCP	5.5	5.4	8.6	4.7	8.6	13.1	5.9	4.1	.0	2.1	58.0	
	TOT %	6.0	5.7	8.7	5.2	9.0	13.5	6.3	4.4	.0	2.1	60.9	
	TOT OBS												571
	TOT PCT	10.4	11.2	11.5	8.1	15.7	21.6	10.5	9.5	.0	2.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.2	.0	.0	.0	.0	.2	.0		.3	
	TOT %	.0	.0	.2	.0	.0	.0	.0	.2	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.5	.0	.0	.0	.0		.5	
	11-21	.0	.0	.0	.0	.2	.0	.0	.0	.0		.2	
	22+	.2	.0	.0	.2	.2	.0	.0	.0	.0		.5	
	TOT %	.2	.0	.0	.2	1.0	.0	.0	.0	.0	.0	1.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.2	.0	.3	.1	.0	.0	.0		.5	
	TOT %	.0	.0	.2	.0	.3	.1	.0	.0	.0	.0	.5	
2<5	0-3	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.2	.3	.2	.2	.0	.2	.0	.0	.0		1.0	
	11-21	.1	.3	.1	*	.1	.7	.2	.1	.0		1.7	
	22+	.7	.5	.0	.2	.2	.2	.4	.6	.0		2.8	
	TOT %	.9	1.2	.5	.4	.3	1.1	.6	.7	.0	.0	5.7	
5<10	0-3	.0	.2	.3	.2	.3	.1	.2	.0	.0	.3	1.6	
	4-10	.9	.7	.5	.6	2.1	1.8	.0	.9	.0		7.4	
	11-21	.8	1.8	.6	1.5	1.7	2.4	1.6	1.0	.0		11.4	
	22+	1.6	1.6	.5	.1	1.4	2.7	2.1	1.3	.0		11.4	
	TOT %	3.4	4.2	1.9	2.3	5.4	7.0	3.8	3.2	.0	.3	31.8	
10+	0-3	.3	.3	1.2	.1	.3	.5	.8	.3	.0	2.1	6.0	
	4-10	2.9	2.6	4.3	2.5	4.4	3.9	1.6	1.7	.0		23.8	
	11-21	2.3	1.9	2.1	1.9	3.0	5.1	2.5	2.0	.0		20.9	
	22+	.3	.7	1.0	.6	1.3	3.8	1.3	.5	.0		9.5	
	TOT %	5.9	5.6	8.6	5.1	8.9	13.3	6.2	4.5	.0	2.1	60.3	
	TOT OBS												579
	TOT PCT	10.4	11.1	11.4	8.0	15.9	21.5	10.7	8.6	.0	2.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 2499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	4.7	12.3	21.7	9.4	.9	.0	.0	.0	49.1	50.9	106
06&09	.0	.0	7.1	16.1	17.9	8.9	2.7	.0	.0	.0	52.7	47.3	112
12&15	4.8	.0	1.6	11.3	11.3	4.8	1.6	4.8	.0	.0	40.3	59.7	62
18&21	5.3	.0	2.7	12.0	12.0	8.0	.0	1.3	.0	.0	41.3	58.7	75
TOT	7	0	16	47	59	29	5	4	0	0	167	188	355
PCT	2.0	.0	4.5	13.2	16.6	8.2	1.4	1.1	.0	.0	47.0	53.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.7	.0	.7	2.9	30.2	65.5	139
06&09	.0	2.7	.0	8.0	34.6	54.8	188
12&15	.8	.8	1.7	5.1	28.8	62.7	118
18&21	.0	1.3	.0	5.9	29.6	63.2	152
TOT	2	8	9	34	186	364	597
PCT	.3	1.3	.5	5.7	31.2	61.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	5.8	19.4	32.0	48.5	103
06&09	.0	8.0	30.0	29.0	41.0	100
12&15	5.5	10.9	21.8	23.6	54.5	55
18&21	5.8	8.7	21.7	23.2	55.1	69
TOT	7	26	77	91	159	327
PCT	2.1	8.0	23.5	27.8	48.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.0	.3	.3	.3	.0	3	.8
55/59	.0	.0	.8	1.0	2.8	4.3	6.5	7.5	99	24.8
50/54	.0	.0	.3	2.0	7.3	8.0	19.5	18.0	220	55.1
45/49	.0	.0	.0	.5	1.3	3.5	4.8	7.8	71	17.8
40/44	.0	.0	.0	.0	.0	.3	.5	.8	6	1.5
TOTAL	0	0	4	14	46	73	126	136	399	100.0
PCT	.0	.0	1.0	3.5	11.5	18.3	31.6	34.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.3	.0	.3	.0	.0	.3	.0	.0
5.9	2.5	1.4	1.1	2.6	4.1	3.1	2.9	.0	1.3
4.8	6.6	7.7	4.9	6.8	14.3	4.9	4.1	.0	1.0
.7	1.1	4.3	1.8	3.4	3.6	1.8	.6	.0	.5
.0	.0	.0	.0	.7	.3	.4	.1	.0	.0
11.4	10.3	13.7	7.8	13.7	22.2	10.3	7.9	.0	2.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	64	63	59	56	48	46	45	53.4	154
06&09	59	58	57	53	48	44	44	52.6	215
12&15	58	57	56	52	46	43	32	51.5	125
18&21	64	61	57	52	45	40	34	51.9	173
TOT	64	59	57	53	46	44	32	52.5	667

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.3	16.5	22.0	26.6	27.5	80	109
06&09	.0	.8	12.5	18.3	38.3	30.0	84	120
12&15	.0	2.6	11.5	16.7	23.1	46.2	85	78
18&21	.0	7.8	5.9	15.7	33.3	37.3	84	102
TOT	0	19	48	75	127	140	83	409

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	TOT	W FOG	WO FOG
7/8	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
6	.0	.0	.0	.0	.7	.2	.2	5	.2	.9
5	.0	.0	.0	.4	.7	1.3	.2	12	.0	2.6
4	.0	.0	.0	.2	.0	.4	.2	4	.0	.9
3	.0	.0	.0	.0	.2	.2	.2	3	.0	.7
2	.0	.0	.2	.7	1.3	1.7	.0	18	.0	3.9
1	.0	.0	.2	.7	2.6	1.5	.0	23	.2	4.8
0	.0	.0	.0	3.3	6.7	1.5	.0	53	.0	11.5
-1	.0	.0	.2	2.8	5.9	.4	.0	43	.2	9.1
-2	.0	.0	.2	5.6	7.8	1.1	.0	66	.7	14.1
-3	.0	.0	.4	2.6	3.9	.0	.0	32	.2	6.7
-4	.0	.0	2.2	6.3	3.9	.7	.0	60	.2	12.8
-5	.0	.2	1.3	5.0	5.0	.0	.0	53	.4	11.1
-6	.0	.0	1.7	2.6	1.7	.0	.0	28	.0	6.1
-7/-8	.0	.0	2.4	4.6	.4	.2	.0	35	.0	7.6
-9/-10	.2	.4	.4	2.6	.0	.0	.0	17	.0	3.7
-11/-13	.0	.2	.9	.0	.0	.0	.0	5	.0	1.1
-14/-16	.0	.0	.0	.2	.0	.0	.0	1	.0	.2
TOTAL	1	4	47	173	188	44	4	461	10	451
PCT	.2	.9	10.2	37.5	40.8	9.5	.9	100.0	2.2	97.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.6	.0	.0	.0	.0	1.6
1-2	.3	2.0	.8	.0	.0	.0	3.1
3-4	.0	.5	1.5	.0	.0	.0	2.0
5-6	.0	.9	.3	.0	.0	.0	1.2
7	.0	.7	1.2	.0	.3	.0	2.1
8-9	.0	.0	.0	.3	.3	.0	.5
10-11	.0	.0	.3	.0	.3	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.3	.7
17-19	.0	.0	.0	.3	.0	.0	.3
20-22	.0	.0	.3	.0	.0	.0	.3
23-25	.0	.0	.0	.0	.0	.3	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.7	4.4	.8	.8	.7	12.7

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.8	.1	.0	.0	.0	1.4
1-2	.1	1.5	1.3	.0	.0	.0	2.9
3-4	.0	1.9	.9	.0	.0	.0	2.9
5-6	.0	.4	1.5	.2	.0	.0	2.1
7	.0	.3	1.2	1.0	.0	.0	2.5
8-9	.0	.0	.3	.1	.4	.0	.8
10-11	.0	.0	.4	.3	.0	.0	.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.4	.0	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.1	5.7	2.0	.4	.0	13.8

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.5	1.6	.3	.0	.0	.0	3.4
1-2	.3	3.7	1.2	.0	.0	.0	5.2
3-4	.0	.8	2.1	.0	.0	.0	2.9
5-6	.0	.0	.8	.5	.0	.0	1.3
7	.0	.0	.8	.3	.0	.0	1.2
8-9	.3	.3	.0	.0	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.2	6.4	5.2	.8	.0	.0	14.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.1	1.4	.7	.0	.0	.0	2.2
3-4	.0	.2	1.3	.0	.0	.0	1.5
5-6	.0	.3	.6	.1	.0	.0	1.0
7	.0	.0	.0	.3	.0	.0	.3
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.3	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.1	2.9	.8	.7	.0	6.6

PERIOD: (OVER-ALL) 1963-1977 JULY AREA 0030 SOUTH ISLAND (NW) 41.7S 169.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.2	.0	.0	.0	.0	1.2
1-2	.3	2.9	.0	.0	.0	.0	3.1
3-4	.0	1.3	2.0	.0	.0	.0	3.3
5-6	.0	.0	1.2	.6	.3	.0	2.0
7	.0	.3	.6	.6	.0	.0	1.4
8-9	.0	.0	.0	.3	.3	.0	.5
10-11	.0	.0	.3	.3	.0	.0	.7
12	.0	.0	.0	.0	.3	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.6	4.1	1.8	.8	.0	12.5

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	1.0	.0	.0	.0	.0	1.7
1-2	.0	2.6	.0	.0	.0	.0	2.6
3-4	.0	.8	2.9	.0	.0	.0	3.5
5-6	.0	1.0	2.0	1.3	.1	.0	4.5
7	.0	.4	.8	1.1	.0	.0	2.3
8-9	.0	.0	.7	1.1	.4	.0	2.2
10-11	.0	.0	.0	.8	.7	.0	1.4
12	.0	.0	.0	.7	.0	.0	.7
13-16	.0	.0	.0	.3	.3	.0	.7
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.3	.3
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.8	6.2	5.3	1.5	.3	19.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.3	.3	.0	.0	.0	1.5
1-2	.7	1.1	.3	.0	.0	.0	2.1
3-4	.0	.3	1.3	.3	.0	.0	1.9
5-6	.0	.0	.0	.3	.0	.0	.3
7	.0	.3	.3	.6	.0	.0	1.3
8-9	.0	.0	.0	.0	.3	.0	.3
10-11	.0	.0	.3	.3	.0	.0	.6
12	.0	.3	.0	.0	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.3	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.6	2.4	2.4	1.4	.6	.0	8.6

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	.4	.0	.0	.0	.0	.8	
1-2	.0	1.3	.4	.0	.0	.0	1.7	
3-4	.0	1.3	.8	.4	.0	.0	2.6	
5-6	.0	.0	.0	.3	.3	.0	.7	
7	.0	.0	1.2	.4	.1	.0	1.7	
8-9	.0	.0	.0	.3	.1	.0	.4	
10-11	.0	.0	.0	.7	.3	.0	1.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	3.0	2.4	2.2	.8	.0	8.9	97.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.0	7.4	.7	.0	.0	.0	14.0	
1-2	2.0	16.4	4.7	.0	.0	.0	23.1	
3-4	.3	7.0	12.7	.7	.0	.0	20.7	
5-6	.0	2.7	6.4	3.3	.7	.0	13.0	
7	.0	2.0	6.0	4.3	.3	.0	12.7	
8-9	.3	.3	1.0	2.3	1.7	.0	5.7	
10-11	.0	.0	1.7	2.3	1.3	.0	5.4	
12	.0	.3	.0	.7	.3	.0	1.3	
13-16	.0	.0	.0	.7	.7	.3	1.7	
17-19	.0	.0	.0	.7	.0	.0	.7	
20-22	.0	.0	.3	.0	.3	.0	.7	
23-25	.0	.0	.0	.0	.3	.3	.7	
26-32	.0	.0	.0	.0	.0	.3	.3	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								299
TOT PCT	8.7	36.1	33.4	15.1	5.7	1.0	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.1	7.2	7.2	2.8	5.6	.6	.9	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	91	4
6-7	.0	.0	1.2	5.9	4.7	5.0	2.5	3.1	1.9	2.2	.3	.3	.0	.0	.0	.0	.0	.0	.0	87	9
8-9	.0	.0	1.6	2.5	5.0	.9	2.8	2.8	3.1	2.5	1.6	.3	.0	.0	.0	.0	.0	.0	.0	74	11
10-11	.0	.0	.6	1.2	1.9	.3	.9	.6	1.9	.0	.6	.3	.3	.0	.0	.0	.0	.0	.0	28	11
12-13	.0	.0	.6	.6	.3	.0	.6	1.2	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	12	9
>13	.0	.0	.0	1.2	.6	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	8
INDET	1.2	.9	.6	.9	.9	.6	.3	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	5
TOTAL	14	26	38	49	41	24	27	28	23	18	9	3	1	0	0	0	0	0	0	321	8
PCT	4.4	8.1	11.8	15.3	19.0	7.5	8.4	8.7	7.2	5.6	2.8	.9	.3	.0	.0	.0	.0	.0	.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1868-1977

AREA 0030 SOUTH ISLAND (NW)
41.7S 167.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA						
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	21.5	.7	6.3	.0	.0	.0	.0	27.1	2.6	1.3	2.6	.0	1.0	.0		66.7
NE	22.3	1.5	8.4	.0	.0	.0	.0	32.2	3.3	.0	2.0	.0	1.3	1.0		60.3
E	14.5	.0	8.1	.0	.0	.0	.0	20.9	2.4	.0	1.3	.0	.0	.0		75.2
SE	6.0	3.0	.0	.0	.0	.0	.0	9.0	13.5	.0	.8	.0	.0	.0		76.7
S	5.4	1.8	3.6	.0	.0	.0	.0	10.9	1.4	.0	.0	.0	.0	.0		87.8
SW	2.9	3.8	2.9	.0	.0	.0	.0	8.3	6.7	.0	.6	.0	1.3	.0		83.1
W	1.4	8.2	1.4	.0	.0	.0	.0	11.1	5.3	1.9	1.0	.0	.0	.0		80.7
NW	3.9	10.0	3.9	.0	.0	.0	.0	17.9	8.7	1.7	.0	.0	3.5	.0		68.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	4.8	.0	.0	.0	.0	4.8	9.5	.0	.0	.0	.0	.0		85.7
TOT PCT	10.8	3.2	4.9	.0	.0	.0	.0	18.3	5.1	.6	1.1	.0	.9	.2		74.0
TOT OBS:	530															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA						
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	7.1	2.4	.8	.0	.0	.0	.0	10.2	6.3	.0	.0	.0	1.6	.8		81.1
06&09	10.6	5.6	5.6	.0	.0	.0	.0	21.2	3.4	.6	1.1	.0	1.1	.0		72.6
12&15	13.0	1.9	5.6	.0	.0	.0	.0	20.4	4.6	1.9	.9	.0	.9	.0		72.2
18&21	11.2	1.4	10.5	.0	.0	.0	.0	21.0	6.3	.0	2.1	.0	.0	.0		70.6
TOT PCT	10.4	3.1	5.7	.0	.0	.0	.0	18.5	5.0	.5	1.1	.0	.9	.2		74.0
TOT OBS:	557															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)						
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	4.6	4.3	3.4	1.4	.4		14.6	18.1	14.0	68.8	13.1	7.6	19.1	.0	16.9	8.3
NE	.1	6.1	4.7	4.0	1.4	*		16.4	17.5	14.9	6.3	16.2	20.5	14.9	.0	16.9	22.5
E	1.0	3.4	4.0	1.7	1.0	.0		11.1	15.6	12.2	.0	6.6	7.2	10.7	.0	15.4	22.5
SE	.1	2.0	2.9	1.1	.0	.0		6.1	14.1	7.2	.0	4.6	7.2	5.3	.0	6.7	7.5
S	.8	3.3	5.3	1.9	.3	.2		11.7	16.0	15.0	.0	10.9	4.5	14.0	20.0	9.3	15.8
SW	.4	4.7	6.4	2.6	.5	.2		14.7	16.1	14.1	.0	21.4	18.6	11.8	40.0	10.8	3.3
W	.5	2.7	6.1	.8	.2	.3		10.6	16.0	10.3	25.0	13.7	17.8	9.0	20.0	4.3	11.7
NW	.4	3.3	5.1	1.6	.5	.2		11.0	16.0	9.5	.0	10.6	12.1	11.6	20.0	12.6	8.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.8							3.8	.0	2.8	.0	2.9	4.5	3.5	.0	7.1	.0
TOT OBS	47	190	243	106	34	8	628		15.8	145	4	137	66	114	5	127	30
TOT PCT	7.5	30.3	38.7	16.9	5.4	1.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.0	6.1	4.0	2.0	.6		14.6	18.1	15.4	11.3	18.3	15.3
NE	1.8	7.4	3.9	2.4	.9		16.4	17.5	14.6	17.6	14.3	18.0
E	2.7	4.1	2.5	1.0	.8		11.1	15.6	11.9	6.8	10.3	16.7
SE	1.4	2.4	2.0	.3	.0		6.1	14.1	7.0	5.4	5.0	6.8
S	1.8	4.0	4.5	1.3	.2		11.7	16.0	14.6	8.9	14.3	10.5
SW	2.2	5.9	4.8	1.6	.3		14.7	16.1	13.8	20.4	13.0	9.4
W	1.0	3.8	5.3	.3	.3		10.6	16.0	10.7	15.0	9.5	5.7
NW	1.6	5.1	3.1	.8	.4		11.0	16.0	9.2	11.1	12.0	11.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.8						3.8	.0	2.7	3.4	3.4	5.7
TOT OBS	114	243	189	61	21	628		15.8	149	203	119	197
TOT PCT	18.2	38.7	30.1	9.7	3.3		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.7	4.0	30.9	32.2	20.8	5.4	4.0	17.5	100.0	149
06&09	3.4	3.4	25.6	44.8	16.3	5.9	.5	16.2	100.0	203
12&15	3.4	2.5	31.9	41.2	13.4	7.6	.0	15.2	100.0	119
18&21	5.7	4.5	34.4	35.0	16.6	3.2	.6	14.1	100.0	157
TOT	24	23	190	243	106	34	8	15.8		628
PCT	3.8	3.7	30.3	38.7	16.9	5.4	1.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.4	1.6	3.6	6.7		5.9
NE	1.1	1.2	3.7	9.3		6.7
E	3.2	.9	2.1	3.3		4.9
SE	.8	.6	3.7	2.7		6.3
S	1.3	2.2	7.0	3.0		5.6
SW	3.4	2.1	8.1	2.3		4.9
W	1.5	2.7	4.8	.6		4.7
NW	1.5	1.6	4.7	2.7		5.5
VAR	.0	.0	.0	.0		.0
CALM	1.6	.9	.9	.0		2.8
TOT OBS	53	44	122	97	316	5.5
TOT PCT	16.8	13.9	38.6	30.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.6	.3	.9	1.9	2.9	1.6	.3	.0	.3	.0	5.4	
NE	1.3	.0	1.3	3.6	2.1	1.5	.3	.9	.0	.0	4.6	
E	.2	.0	.6	1.4	1.2	.6	.5	.3	.0	.0	4.7	
SE	.0	.0	.4	1.1	2.7	.9	.6	.0	.0	.0	2.1	
S	.0	.0	.3	2.1	4.5	.3	.4	.3	.0	.0	5.5	
SW	.0	.0	.3	1.4	3.9	2.0	.5	.9	.0	.0	7.4	
W	.0	.0	.3	.2	2.8	1.2	.0	.0	.0	.0	5.1	
NW	.0	.3	.6	1.1	1.8	1.0	.3	.0	.0	.0	5.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	2.8	
TOT OBS	7	2	15	41	70	29	10	4	1	0	135	316
TOT PCT	2.2	.6	4.7	13.0	22.2	9.2	3.2	1.9	.3	.0	42.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >A500	.3	.3	.3	.3	.3	.3	.3	.3
= OR >4000	1.5	2.1	2.1	2.1	2.1	2.1	2.1	2.1
= OR >3500	5.1	5.7	5.7	5.7	5.7	5.7	5.7	5.7
= OR >2000	13.1	14.3	14.3	14.9	14.9	14.9	14.9	14.9
= OR >1000	27.4	32.4	33.9	35.4	35.7	36.0	36.0	36.0
= OR >600	31.8	41.4	44.6	47.0	48.2	48.5	48.5	48.5
= OR >300	33.0	44.0	48.5	51.5	52.7	53.0	53.0	53.0
= OR >150	33.3	44.3	49.1	52.1	53.3	53.6	53.6	53.6
= OR > 0	33.6	46.1	50.9	54.5	56.0	56.3	56.3	56.3
TOTAL	113	155	171	183	188	189	189	189

TOTAL NUMBER OF OBS: 336 PCT FREQ NH <5/8: 43.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
3.7	9.0	11.5	9.5	7.5	6.5	9.0	11.0	30.2	2.2	401

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.0	.1	*	.0	.0	.0	.0	.0	.0	.4	
	TOT %	.2	.0	.1	*	.0	.0	.0	.0	.0	.0	.4	
1/2<1	PCP	.4	.4	.0	.0	.0	.4	.2	.4	.0	.0	1.7	
	NO PCP	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	TOT %	.4	.8	.0	.0	.0	.4	.2	.4	.0	.0	2.1	
1<2	PCP	.9	1.0	.2	.0	.0	.0	.0	.0	.0	.0	2.1	
	NO PCP	.1	*	.0	.0	.0	.0	.0	.2	.0	.0	.4	
	TOT %	1.0	1.0	.2	.0	.0	.0	.0	.2	.0	.0	2.5	
2<5	PCP	1.3	1.3	.2	.0	.2	.3	.4	.5	.0	.0	4.2	
	NO PCP	.3	*	.0	.0	.0	.4	.4	.2	.0	.0	1.3	
	TOT %	1.7	1.3	.2	.0	.2	.7	.8	.7	.0	.0	5.5	
5<10	PCP	1.3	2.9	1.6	.6	.8	.4	.3	1.1	.0	.2	9.1	
	NO PCP	3.3	6.6	1.6	1.2	1.5	2.9	1.7	2.2	.0	1.1	22.1	
	TOT %	4.6	9.5	3.2	1.7	2.3	3.3	2.0	3.3	.0	1.3	31.1	
10+	PCP	.0	.4	.3	.0	.2	.2	.2	.0	.0	.0	1.3	
	NO PCP	6.5	5.6	7.0	4.5	7.8	10.3	6.6	6.3	.0	2.6	57.2	
	TOT %	6.5	6.0	7.4	4.5	8.0	10.5	6.7	6.3	.0	2.6	58.5	
	TOT OBS												530
	TOT PCT	14.3	18.6	11.0	6.3	10.4	14.8	9.8	10.8	.0	4.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.1	*	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.0	.1	*	.0	.0	.0	.0	.0	.0	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.0	.0	.0	.2	.2	.0	.0		.6	
	11-21	.0	.6	.0	.0	.0	.0	.0	.2	.0		.8	
	22+	.4	.0	.0	.0	.0	.2	.0	.2	.0		.8	
	TOT %	.4	.8	.0	.0	.0	.4	.2	.4	.0	.0	2.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.2	.2	.0	.0	.0	.0	.0	.0	.0		.4	
	22+	.8	.7	.2	.0	.0	.0	.0	.2	.0		1.9	
	TOT %	1.0	1.0	.2	.0	.0	.0	.0	.2	.0	.0	2.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.4	.0	.0	.0	.0	.2	.1	.2	.0		.9	
	11-21	.5	.4	.0	.0	.2	.2	.3	.3	.0		1.9	
	22+	.8	.9	.2	.0	.2	.2	.3	.2	.0		2.8	
	TOT %	1.6	1.3	.2	.0	.4	.7	.8	.7	.0	.0	5.6	
5<10	0-3	.3	.1	.0	.0	.1	*	.0	.0	.0	1.3	1.9	
	4-10	1.5	3.9	.1	.2	.5	.8	.4	.8	.0		8.1	
	11-21	1.7	2.2	1.6	.9	1.5	1.2	1.2	1.6	.0		11.8	
	22+	1.1	3.4	1.5	.7	.2	1.1	.4	.8	.0		9.2	
	TOT %	4.6	9.5	3.1	1.7	2.3	3.2	2.0	3.2	.0	1.3	31.0	
10+	0-3	.1	.0	.7	*	.4	.2	.4	.2	.0	2.6	4.7	
	4-10	2.9	2.6	3.0	1.7	3.3	3.5	2.2	2.4	.0		21.6	
	11-21	1.6	2.0	2.6	2.3	3.0	4.9	3.5	2.7	.0		22.7	
	22+	1.7	1.4	1.0	.6	1.3	1.9	.6	.9	.0		9.4	
	TOT %	6.4	6.0	7.3	4.7	7.9	10.5	6.7	6.3	.0	2.6	58.5	
	TOT OBS												532
	TOT PCT	14.2	18.6	11.0	6.4	10.6	14.8	9.7	10.8	.0	3.9	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.9	1.8	4.6	10.1	23.9	5.5	5.5	.9	.0	.0	53.2	46.8	109
06&09	3.6	.0	3.7	9.3	25.0	10.2	1.9	3.7	.9	.0	59.3	40.7	108
12&15	1.9	.0	5.7	18.9	9.4	9.4	.0	.0	.0	.0	45.3	54.7	53
18&21	3.5	.0	3.5	14.0	15.1	10.5	4.7	1.2	.0	.0	52.3	47.7	86
TOT	10	2	15	43	71	31	12	6	1	0	191	165	356
PCT	2.8	.6	4.2	12.1	19.9	8.7	3.4	1.7	.3	.0	53.7	46.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	2.4	2.4	4.7	22.0	67.7	127
06&09	.0	2.2	3.4	3.9	36.9	53.6	179
12&15	.0	1.8	2.8	7.3	30.3	57.8	109
18&21	1.4	1.4	1.4	6.9	29.2	59.7	144
TOT	2	11	14	31	170	331	559
PCT	.4	2.0	2.5	5.5	30.4	59.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.0	9.5	21.9	34.3	43.8	105
06&09	3.9	7.8	20.4	39.8	39.8	103
12&15	2.1	8.3	31.3	18.8	50.0	48
18&21	3.8	12.5	28.8	28.8	42.5	80
TOT	9	32	82	109	145	336
PCT	2.7	9.5	24.4	32.4	43.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.0	.5	.0	.0	.0	2	.5
55/59	.0	.0	.5	.3	3.0	8.4	11.9	10.2	135	34.3
50/54	.0	.0	.3	1.8	7.1	12.9	15.7	14.5	206	52.3
45/49	.0	.0	.3	.5	1.0	3.0	3.6	3.6	47	11.9
40/44	.0	.0	.0	.0	.0	1.0	.0	.0	4	1.0
TOTAL	0	0	4	10	46	100	123	111	394	100.0
PCT	.0	.0	1.0	2.5	11.7	25.4	31.2	28.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0
	8.1	4.9	3.8	2.1	2.6	2.2	5.0	4.4	.0	1.0
	4.8	8.8	6.1	3.9	6.3	10.7	5.3	3.7	.0	2.5
	.4	.3	1.0	1.8	3.7	2.3	1.2	.9	.0	.3
	.0	.0	.0	.0	.3	.7	.0	.0	.0	.0
	13.4	14.0	10.9	7.7	13.0	16.5	11.5	9.1	.0	3.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	63	61	58	56	48	43	43	53.9	146
06&09	64	59	57	53	46	45	45	52.9	208
12&15	58	57	57	53	46	44	44	52.5	122
18&21	59	58	57	53	48	45	45	52.6	162
TOT	64	59	57	53	48	45	43	53.0	638

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	2.8	17.0	27.4	31.1	21.7	80	106
06&09	.0	4.0	8.1	29.8	29.0	29.0	82	124
12&15	.0	2.5	11.4	16.5	40.5	29.1	84	79
18&21	.0	3.7	9.3	24.1	28.7	34.3	84	108
TOT	0	14	47	105	132	119	83	417

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	TOT	# FOG	MO FOG
9/10	.0	.0	.0	.0	.2	.2	2	.0	.5
7/8	.0	.0	.0	.2	.2	.2	3	.0	.7
6	.0	.0	.2	.0	.5	.0	3	.0	.7
5	.0	.0	.0	1.0	.5	.0	6	.0	1.5
4	.0	.0	.7	.2	1.9	.0	12	.2	2.7
3	.0	.0	.0	1.0	2.7	.0	15	.0	3.6
2	.0	.0	.7	4.1	2.2	.0	29	.0	7.0
1	.0	.0	.2	4.8	1.9	.0	29	.2	6.8
0	.0	.0	2.7	6.0	.5	.0	41	.2	9.7
-1	.0	.0	1.5	9.7	1.0	.0	50	.2	11.9
-2	.0	1.2	3.4	8.7	.5	.0	57	.0	13.8
-3	.0	.5	3.6	3.1	.0	.0	30	.2	7.0
-4	.0	2.7	3.6	3.9	.2	.0	43	.2	10.2
-5	.0	1.9	3.6	3.6	.5	.0	40	.0	9.7
-6	.2	.5	2.2	1.5	.0	.0	18	.0	4.4
-7/-8	.0	1.5	3.9	.5	.0	.0	24	.0	5.8
-9/-10	.0	.2	1.9	.0	.0	.0	9	.0	2.2
-11/-13	.2	.2	.0	.0	.0	.0	2	.0	.5
TOTAL	2	36	117	203	53	2	413	6	407
PCT	.5	8.7	28.3	49.2	12.8	.5	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.9	.3	.0	.0	.0	1.4
1-2	.0	2.2	.9	.0	.0	.0	3.0
3-4	.0	.5	2.0	.3	.0	.0	2.9
5-6	.0	.9	1.0	.3	.6	.0	2.9
7	.0	.0	.5	.9	.0	.0	1.4
8-9	.0	.0	.0	.9	.3	.0	1.2
10-11	.0	.0	.0	.5	.0	.3	.9
12	.0	.0	.0	.0	.3	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.3	.2	.5
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.5	4.7	2.9	1.9	.5	14.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.7	.3	.0	.0	.0	2.0
1-2	.0	2.2	1.3	.0	.0	.0	3.5
3-4	.0	.5	1.3	.6	.0	.0	2.4
5-6	.0	.3	.8	1.0	.0	.0	2.1
7	.0	.3	1.3	.9	.0	.0	2.6
8-9	.0	.3	.0	.0	.0	.0	.3
10-11	.0	.0	.3	.6	.0	.0	.9
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.9	.0	.0	.9
17-19	.0	.0	.0	.0	.6	.0	.6
20-22	.0	.0	.0	.0	.3	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.1	.1
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.3	5.3	4.1	.9	.1	15.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.4	.6	.0	.0	.0	2.3
1-2	.0	.6	.5	.0	.0	.0	1.2
3-4	.0	.5	.5	.3	.0	.0	1.4
5-6	.2	.3	1.5	.5	.3	.0	2.9
7	.0	.0	.6	.0	.0	.0	.6
8-9	.0	.0	.2	.3	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.3	.0	.3
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.9	4.0	1.2	.6	.0	9.2

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	1.2	1.3	.0	.0	.0	2.6
3-4	.0	.7	1.8	.3	.0	.0	2.8
5-6	.1	.0	1.2	.3	.0	.0	1.5
7	.0	.0	.1	.3	.0	.0	.4
8-9	.0	.0	.1	.4	.0	.0	.5
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.3	4.4	1.6	.0	.0	8.4

PERIOD: (OVER-ALL) 1963-1977 AUGUST AREA 0030 SOUTH ISLAND (NW) 41.7S 167.2E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.3	.0	.0	.0	.5
1-2	.5	2.9	.3	.0	.0	.0	3.9
3-4	.0	1.5	1.6	.0	.0	.0	3.1
5-6	.0	.0	1.2	.3	.0	.0	1.5
7	.0	.3	1.3	.0	.3	.0	1.9
8-9	.0	.2	.0	.5	.0	.0	.8
10-11	.0	.0	.2	.3	.0	.0	.5
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.1	5.2	1.5	.3	.0	12.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.3	.0	.0	.0	1.0
1-2	.1	2.8	1.0	.0	.0	.0	3.9
3-4	.0	1.6	1.4	1.2	.0	.0	4.3
5-6	.0	.1	2.1	.0	.0	.0	2.2
7	.0	.3	.8	.9	.0	.0	2.0
8-9	.0	.4	.3	.0	.1	.0	.8
10-11	.0	.0	.2	.3	.0	.0	.5
12	.0	.0	.0	.0	.6	.0	.6
13-16	.0	.0	.1	.3	.0	.3	.7
17-19	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	5.9	6.1	2.8	1.0	.3	16.2

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.3	.0	.0	.0	1.2
1-2	.0	1.3	1.0	.0	.0	.0	2.3
3-4	.0	.2	1.2	.2	.0	.0	1.6
5-6	.0	.2	.9	.0	.0	.0	1.1
7	.0	.0	.6	.5	.0	.0	1.2
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.5	.0	.0	.0	.5
12	.0	.0	.0	.0	.3	.3	
13-16	.0	.0	.2	.0	.0	.0	.2
17-19	.0	.0	.0	.2	.2	.0	.5
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.6	4.7	.8	.5	.5	9.1

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	.7	.0	.0	.0	.0	1.1	
1-2	.0	1.1	.2	.0	.0	.0	1.3	
3-4	.0	.9	1.9	.4	.0	.0	3.3	
5-6	.0	.6	1.4	.3	.0	.0	2.3	
7	.0	.0	.3	.5	.3	.0	1.1	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.3	.3	
17-19	.0	.0	.0	.0	.1	.1	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	3.3	3.9	1.2	.4	.4	9.6	95.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.5	6.8	2.2	.0	.0	.0	14.5	
1-2	.6	14.2	6.8	.0	.0	.0	21.5	
3-4	.0	6.8	11.7	3.4	.0	.0	21.8	
5-6	.3	2.5	9.8	2.8	.9	.0	16.3	
7	.0	.9	5.5	4.0	.6	.0	11.1	
8-9	.0	.9	.6	2.2	.6	.0	4.3	
10-11	.0	.0	1.2	2.2	.0	.3	3.7	
12	.0	.0	.0	.3	.9	.3	1.5	
13-16	.0	.0	.3	1.2	.0	.6	2.2	
17-19	.0	.0	.0	.0	1.5	.3	1.8	
20-22	.0	.0	.0	.0	.3	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.6	.3	.9	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.5	32.0	38.2	16.0	5.5	1.8	100.0	325

PERIOD: (OVER-ALL) 1949-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.3	3.8	4.1	6.3	3.6	.8	2.5	.5	2.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	100	5
6-7	.0	.3	1.4	3.3	4.4	3.8	2.7	1.4	3.6	.8	1.4	.3	.3	.3	.0	.0	.0	.0	.0	87	10
8-9	.0	.3	1.4	1.4	2.2	3.6	4.7	3.0	4.9	1.1	1.1	.3	.0	.0	.0	.0	.0	.0	.0	87	10
10-11	.0	.3	.3	.3	1.9	.5	1.6	.5	1.1	1.4	.5	.5	.0	.3	.0	.0	.0	.0	.0	34	12
12-13	.0	.0	.5	.3	.8	.5	.0	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	12	10
>13	.0	.0	.0	1.4	1.1	.0	.5	.8	.8	.3	.0	.0	.8	.0	.0	.0	.0	.0	.0	21	12
INDET	1.6	.3	.8	1.1	1.1	.3	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	5
TOTAL	18	18	31	51	55	35	46	25	46	16	11	5	5	2	0	0	0	0	0	364	9
PCT	4.9	4.9	8.5	14.0	15.1	9.6	12.6	6.9	12.6	4.4	3.0	1.4	1.4	.5	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1868-1977

AREA 0030 SOUTH ISLAND (NZ)
41.5S 168.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	16.0	2.3	5.1	.0	.0	.0	.0	20.6	7.4	.0	.9	.0	.0	.0		71.1
NE	17.7	2.2	10.5	.0	.0	.0	.0	29.3	7.9	.0	.0	.0	.0	.0		63.5
E	16.9	.0	2.8	.0	.0	.0	.0	19.7	7.0	.0	1.9	.0	.0	.0		71.4
SE	12.7	3.2	4.8	.0	.0	.0	.0	17.5	7.1	.0	.0	.0	.0	.0		75.4
S	3.6	3.0	2.1	.0	.0	.0	2.4	11.2	4.8	.0	2.1	.0	1.2	1.2		79.4
SW	5.0	6.5	2.4	.0	.0	.0	.0	13.9	2.6	.0	.2	.0	.8	.0		82.5
W	3.2	7.6	2.3	.0	.0	.0	.0	13.2	4.4	.0	2.3	.0	.0	.0		80.1
NW	11.2	9.3	3.7	.0	.0	.0	.0	24.3	11.7	1.9	2.3	.0	1.9	.0		57.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	6.7	.0	6.7	.0	.0	.0	.0	13.3	.0	.0	.0	.0	.0	.0		86.7
TOT PCT	9.3	4.5	3.8	.0	.0	.0	.3	17.3	5.7	.2	1.2	.0	.5	.2		74.9
TOT OBS:	578															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	9.0	2.8	3.4	.0	.0	.0	.0	14.5	5.9	.0	.0	.0	1.4		.7	77.9
06&09	10.9	5.7	4.7	.0	.0	.0	1.0	21.2	3.1	.0	2.6	.0	.5		.0	72.5
12&15	8.9	4.8	4.8	.0	.0	.0	.0	17.7	5.6	.8	2.4	.0	.0		.0	73.4
18&21	7.9	5.0	2.9	.0	.0	.0	.0	15.7	8.6	.0	.7	.0	.0		.0	75.0
TOT PCT	9.3	4.7	4.0	.0	.0	.0	.3	17.6	5.5	.2	1.5	.0	.5		.2	74.6
TOT OBS:	602															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)						
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.0	4.1	5.1	3.1	1.0	.0		14.4	16.6	16.2	.0	14.3	11.7	12.8	20.0	12.9	24.3
NE	.3	2.3	4.1	.6	.4	*		7.8	14.4	10.1	.0	11.2	4.0	7.5	.0	5.1	.7
E	1.5	2.5	3.9	1.4	.5	.1		9.9	14.9	10.9	.0	7.2	10.5	13.0	.0	9.6	8.1
SE	.7	2.4	2.5	1.0	.1	.0		6.6	13.1	6.8	.0	6.2	4.0	5.1	.0	9.1	11.0
S	.1	7.0	5.4	1.9	.6	.0		15.0	13.9	11.5	66.7	14.1	23.0	17.8	40.0	13.9	7.4
SW	.6	4.7	9.8	4.2	.4	.0		19.7	16.4	17.3	.0	22.6	21.0	15.9	20.0	23.2	19.1
W	.1	3.8	6.7	2.7	.3	.0		13.6	15.6	14.0	33.3	13.8	10.9	13.0	20.0	14.3	13.2
NW	.6	2.9	4.3	1.7	.1	.0		9.6	14.6	9.7	.0	7.6	10.1	11.3	.0	9.1	16.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.2							3.2	.0	3.6	.0	2.9	4.8	3.4	.0	2.9	.0
TOT OBS	59	216	304	121	25	1	726		14.7	168	3	170	62	148	5	138	34
TOT PCT	8.1	29.8	41.9	16.7	3.4	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.1	5.9	3.7	2.5	.2		14.4	16.6	15.9	13.6	13.1	15.1
NE	1.5	3.9	1.9	.1	.4		7.8	14.4	9.9	9.3	7.3	4.2
E	2.8	3.2	2.7	.8	.5		9.9	14.9	10.7	8.1	12.6	9.3
SE	1.5	3.1	1.9	.1	*		6.6	13.1	6.7	5.6	5.0	9.4
S	2.8	7.2	3.7	1.2	.2		15.0	13.9	12.4	16.5	18.5	12.6
SW	1.9	7.8	8.1	1.7	.2		19.7	16.4	17.0	22.2	16.1	22.4
W	1.4	6.9	4.1	1.2	.0		13.6	15.6	14.3	13.0	13.2	14.1
NW	1.8	3.9	3.1	.9	.0		9.6	14.6	9.5	8.3	10.9	10.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.2						3.2	.0	3.5	3.4	3.3	2.3
TOT OBS	138	304	212	61	11	726		14.7	171	292	151	172
TOT PCT	19.0	41.9	29.2	8.4	1.5		100.0		100.0	100.0	100.0	100.0

SEPTEMBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1868-1977

AREA 0030 SOUTH ISLAND (NW)
41.5S 168.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.5	3.5	25.1	44.4	20.5	2.9	.0	15.7	100.0	171
06&09	3.4	5.6	24.6	46.6	14.7	4.7	.4	15.1	100.0	232
12&15	3.3	7.3	39.7	31.8	15.9	2.0	.0	12.8	100.0	151
18&21	2.3	3.5	32.6	41.9	16.3	3.5	.0	15.0	100.0	172
TOT	23	36	216	304	121	25	1	14.7		726
PCT	3.2	5.0	29.8	41.9	16.7	3.4	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.7	1.1	5.2	8.7		7.0
NE	.4	.8	2.3	4.4		6.7
E	2.9	1.6	2.2	3.8		5.1
SE	3.4	.9	1.2	1.4		3.6
S	4.5	2.7	4.6	3.7		4.5
SW	4.8	5.6	7.0	2.2		4.3
W	2.1	4.2	5.2	2.9		5.0
NW	.9	.9	2.6	2.9		6.0
VAR	.0	.0	.0	.0		.0
CALM	.8	.5	.3	.5		3.6
TOT OBS	77	69	115	116	377	5.2
TOT PCT	20.4	18.3	30.5	30.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.5	.0	2.7	1.9	5.8	1.7	.5	.0	.0	.0	2.7	
NE	.3	.0	.7	2.8	1.5	.6	.3	.0	.0	.0	1.8	
E	.7	.6	.0	1.5	2.6	.3	.3	.0	.0	.0	5.2	
SE	.6	.0	.0	.7	.6	.6	.3	.0	.0	.0	4.3	
S	.3	.0	.3	1.8	3.3	1.5	.0	.0	.0	.0	9.4	
SW	.3	.0	.0	1.9	2.8	1.2	.9	.0	.0	.0	13.0	
W	.3	.0	.0	2.3	2.8	.5	.5	.0	.0	.3	7.8	
NW	.1	.0	.0	1.7	1.9	1.2	.0	.3	.0	.0	2.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.3	.5	.0	.0	.0	.0	.0	1.3	
TOT OBS	11	0	14	54	82	28	10	1	0	1	176	377
TOT PCT	2.9	.0	3.7	14.3	21.8	7.4	2.7	.3	.0	.3	46.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.3	.3	.3	.3	.3	.3	.3	.3
= OR >5000	.5	.5	.5	.5	.5	.5	.5	.5
= OR >3500	3.1	3.3	3.3	3.3	3.3	3.3	3.3	3.3
= OR >2000	9.5	11.1	11.6	11.6	11.6	11.6	11.6	11.6
= OR >1000	22.6	30.6	32.4	32.6	32.6	32.6	32.6	32.6
= OR >400	29.8	42.9	46.5	47.0	47.0	47.0	47.0	47.0
= OR >300	30.6	45.0	48.8	49.9	50.6	50.6	50.6	50.6
= OR >150	30.6	45.0	48.8	49.9	50.6	50.6	50.6	50.6
= OR > 0	30.6	45.5	50.9	52.4	53.2	53.2	53.2	53.2
TOTAL	119	177	198	204	207	207	207	207

TOTAL NUMBER OF OBS: 389 PCT FREQ NH <5/8: 46.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.2	9.3	10.7	10.4	6.1	7.7	7.7	11.3	26.5	2.0	441

SEPTEMBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1869-1977

AREA 0030 SOUTH ISLAND (NZ)
41.5S 168.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.1	.6	.0	.0	.0	.0	.2	.2	.0	.2	1.2	
	NO PCP	.1	*	.0	.0	.0	.0	.2	.2	.0	.0	.5	
	TOT %	.3	.6	.0	.0	.0	.0	.3	.3	.0	.2	1.7	
1<2	PCP	.3	.2	.0	.0	.0	.0	.0	.2	.0	.0	.7	
	NO PCP	.1	.0	.0	.0	.3	*	.2	.2	.0	.0	.9	
	TOT %	.5	.2	.0	.0	.3	*	.2	.4	.0	.0	1.6	
2<5	PCP	.3	.2	.1	.4	.3	.3	.2	.3	.0	.2	2.4	
	NO PCP	.5	.2	.5	.2	.2	.5	.0	.2	.0	.0	2.3	
	TOT %	.9	.4	.6	.6	.5	.9	.2	.5	.0	.2	4.7	
5<10	PCP	1.8	.9	1.3	.6	1.2	2.2	1.4	1.3	.0	.0	10.6	
	NO PCP	3.8	1.1	.7	.6	2.6	4.2	3.3	2.5	.0	.7	19.6	
	TOT %	5.5	2.0	2.0	1.2	3.8	6.4	4.8	3.8	.0	.7	30.2	
10+	PCP	.5	.5	.4	.0	.1	.4	.2	.3	.0	.0	2.4	
	NO PCP	7.5	4.2	6.2	3.7	9.6	13.6	9.2	4.0	.0	1.6	59.4	
	TOT %	8.0	4.7	6.6	3.7	9.7	14.0	9.4	4.2	.0	1.6	61.9	
	TOT OBS												577
	TOT PCT	15.2	7.8	9.2	5.5	14.3	21.3	14.8	9.3	.0	2.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.3	.0	.0	.0	.0	.2	.2	.0		.7	
	11-21	.0	.0	.0	.0	.0	.0	.2	.2	.0		.3	
	22+	.3	.3	.0	.0	.0	.0	.0	.0	.0		.5	
	TOT %	.3	.6	.0	.0	.0	.0	.3	.3	.0	.2	1.7	
1<2	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.3	*	.2	.2	.0		.7	
	22+	.3	.2	.0	.0	.0	.0	.0	.2	.0		.7	
	TOT %	.5	.2	.0	.0	.3	*	.2	.4	.0	.0	1.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.0	.2	.2	.0	.2	.0		.5	
	11-21	.2	.3	.0	.3	.3	.5	.0	.2	.0		1.9	
	22+	.7	*	.6	.2	.0	.2	.2	.2	.0		2.1	
	TOT %	.9	.4	.6	.6	.5	.9	.2	.5	.0	.2	4.7	
5<10	0-3	.3	.2	.3	.0	.0	.0	.2	.0	.0	.7	1.7	
	4-10	1.7	*	.3	.3	1.3	.8	1.0	1.1	.0		6.6	
	11-21	1.7	1.7	.6	.3	1.4	3.3	1.9	1.6	.0		12.4	
	22+	1.8	.1	.8	.6	1.0	2.3	1.6	1.0	.0		9.3	
	TOT %	5.5	2.0	2.0	1.2	3.8	6.4	4.7	3.8	.0	.7	30.0	
10+	0-3	.5	.2	1.0	.0	.2	.3	.0	.2	.0	1.7	4.1	
	4-10	2.3	1.9	2.4	1.8	5.0	4.0	2.9	1.3	.0		21.7	
	11-21	4.1	2.1	2.1	1.4	3.0	6.7	5.3	2.3	.0		27.1	
	22+	1.0	.4	1.1	.5	1.6	2.9	1.3	.4	.0		9.1	
	TOT %	8.0	4.7	6.6	3.7	9.7	14.0	9.5	4.2	.0	1.7	62.1	
	TOT OBS												580
	TOT PCT	15.1	7.8	9.2	5.4	14.3	21.3	14.9	9.2	.0	2.8	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1868-1977

AREA 0090 SOUTH ISLAND (NW)
41.5S 168.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	4.3	19.1	25.2	9.6	2.6	.0	.0	.0	60.9	39.1	115
06&09	1.6	.0	3.2	14.4	16.8	5.6	3.2	.8	.0	.8	46.4	53.6	125
12&15	4.2	.0	1.4	12.5	16.7	11.1	.0	.0	.0	.0	45.8	54.2	72
18&21	6.4	.0	4.3	7.4	22.3	6.4	4.3	.0	.0	.0	51.1	48.9	94
TOT	11	0	14	56	83	32	11	1	0	1	209	197	406
PCT	2.7	.0	3.4	13.8	20.4	7.9	2.7	.2	.0	.2	51.5	48.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.7	.7	.7	4.1	28.3	65.5	145
06&09	.0	2.1	3.1	5.2	32.0	57.7	194
12&15	.0	2.4	.8	4.8	28.8	63.2	125
18&21	.0	2.1	.7	4.3	30.0	62.9	140
TOT	1	11	9	28	181	374	604
PCT	.2	1.8	1.5	4.6	30.0	61.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	4.5	26.8	35.7	37.5	112
06&09	1.6	4.9	23.0	25.4	51.6	122
12&15	4.5	6.0	22.4	28.4	49.3	67
18&21	5.7	10.2	20.5	33.0	46.6	88
TOT	10	24	91	119	179	389
PCT	2.6	6.2	23.4	30.6	46.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.0	.2	1.1	.6	.4	11	2.3
55/59	.0	.2	.4	1.3	3.6	7.6	16.0	10.1	186	39.2
50/54	.0	.2	.6	1.7	8.2	10.3	14.7	12.2	229	48.2
45/49	.0	.0	.0	.2	.9	2.9	3.4	2.5	47	9.9
40/44	.0	.0	.0	.0	.0	.2	.2	.0	2	.4
TOTAL	0	2	6	14	61	105	166	120	475	100.0
PCT	.0	.4	1.3	3.2	12.8	22.1	34.9	25.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.8	.3	.0	.0	.0	.0	.4	.8	.0	.0
9.6	4.2	3.6	1.7	4.1	5.8	5.5	3.1	.0	1.5
4.7	4.3	5.6	3.6	8.5	10.9	5.7	4.4	.0	.4
.4	.5	1.2	1.0	3.2	2.3	.8	.5	.0	.0
.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
15.5	9.3	10.4	6.3	16.2	19.1	12.5	8.8	.0	1.9

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	61	60	59	54	49	45	45	54.6	167
06&09	65	62	59	54	49	43	43	53.9	239
12&15	61	60	57	54	47	46	45	53.1	150
18&21	60	59	57	53	47	45	41	52.8	172
TOT	65	61	59	54	48	45	41	53.6	724

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.7	10.8	23.3	37.5	21.7	81	120
06&09	.0	6.2	8.1	23.0	41.0	21.7	81	161
12&15	.0	2.0	14.1	23.2	32.3	28.3	83	99
18&21	.0	4.5	18.8	20.5	25.9	30.4	81	112
TOT	0	25	61	111	172	123	81	492

SEPTEMBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1868-1977

AREA 0030 SOUTH ISLAND (NW)
41.5S 168.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.2	.6	.4	6	.0	1.3
9/10	.0	.0	.0	.0	.4	.2	3	.2	.4
7/8	.0	.0	.0	.4	1.1	.0	7	.0	1.5
6	.0	.0	.0	.4	.2	.0	3	.0	.6
5	.0	.0	.2	1.5	1.3	.4	16	.0	3.5
4	.0	.0	.0	1.3	1.7	.0	14	.0	3.0
3	.0	.0	.0	2.2	1.3	.2	17	.0	3.7
2	.0	.2	1.9	4.1	2.8	.0	42	.0	9.1
1	.0	.0	1.9	6.3	2.8	.2	52	.2	11.0
0	.0	.6	3.0	10.8	2.4	.0	78	.0	16.9
-1	.0	.0	3.2	9.5	1.3	.0	65	.0	14.0
-2	.0	.4	3.9	8.6	.4	.0	62	.2	13.2
-3	.0	1.1	3.5	3.0	.4	.0	37	.2	7.8
-4	.0	.4	3.2	.9	.4	.0	23	.2	4.8
-5	.2	.6	2.6	1.1	.0	.0	21	.0	4.5
-6	.2	.4	1.3	.0	.0	.0	9	.2	1.7
-7/-8	.0	1.3	.2	.0	.0	.0	7	.0	1.5
-11/-13	.0	.2	.0	.0	.0	.0	1	.0	.2
TOTAL	2	25	116	233	80	7	463	6	457
PCT	.4	5.4	25.1	50.3	17.3	1.5	100.0	1.3	98.7

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.6	1.7	.8	.0	.0	.0	3.2
3-4	.0	1.2	1.6	.2	.0	.0	3.0
5-6	.0	.0	2.4	.3	.0	.0	2.7
7	.0	.0	.5	1.4	.3	.0	2.3
8-9	.0	.0	.6	.8	.6	.0	2.0
10-11	.0	.0	.0	.5	.6	.0	1.1
12	.0	.0	.0	.3	.2	.0	.5
13-16	.0	.0	.3	.5	.2	.0	1.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.0	6.2	4.1	2.0	.0	15.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.5	.0	.0	.0	.0	.5
1-2	.3	.2	.8	.0	.0	.0	1.2
3-4	.3	1.6	.8	.1	.0	.0	2.8
5-6	.0	.3	1.1	.0	.0	.0	1.4
7	.0	.0	1.0	.1	.0	.0	1.1
8-9	.0	.0	.4	.5	.3	.0	1.1
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.1	.1	.0	.2
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.1	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.5	4.0	.8	.5	.1	8.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.7	.0	.0	.0	.0	.9
1-2	.3	1.1	.5	.0	.0	.0	1.9
3-4	.3	1.1	1.4	.9	.0	.0	3.7
5-6	.0	.3	1.4	.0	.0	.0	1.7
7	.0	.0	1.1	.6	.0	.0	1.7
8-9	.0	.0	.2	.3	.0	.0	.5
10-11	.0	.0	.0	.3	.2	.0	.5
12	.0	.3	.0	.2	.0	.0	.5
13-16	.0	.0	.0	.2	.2	.0	.5
17-19	.0	.0	.0	.0	.6	.0	.6
20-22	.0	.0	.0	.0	.0	.2	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.5	4.6	2.6	1.1	.2	12.8

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	1.1	.3	.0	.0	.0	1.4
3-4	.0	.7	1.3	.6	.0	.0	2.6
5-6	.0	.0	.5	.1	.0	.0	.5
7	.0	.0	.1	.3	.0	.0	.4
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.1	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.4	.1	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.2	2.4	1.4	.2	.0	6.2

PERIOD: (OVER-ALL) 1963-1977 SEPTEMBER AREA 0030 SOUTH ISLAND (NW)

TABLE 18 (CONT) 41.5S 168.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8	.3	.2	.0	.0	.0	.0	.5
1-2	.0	2.3	.4	.0	.0	.0	2.9	.3	2.2	1.5	.0	.0	.0	4.0
3-4	.0	1.6	2.4	.0	.0	.0	4.0	.0	2.1	4.4	.9	.0	.0	7.4
5-6	.0	.6	.8	.8	.0	.0	2.2	.0	.5	1.1	1.6	.0	.0	3.2
7	.0	.0	1.0	.9	.0	.0	1.9	.0	.3	1.2	.3	.0	.0	1.8
8-9	.0	.0	.3	.3	.6	.0	1.2	.0	.0	.3	.6	.1	.0	1.0
10-11	.0	.0	.2	.3	.0	.0	.5	.0	.0	1.0	.6	.0	.0	1.6
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.3	.2	.0	.5	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.2	5.2	2.7	.8	.0	14.0	.6	5.2	9.6	4.1	.1	.0	19.5

	W							NW						TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.3	.3	.0	.0	.0	.0	.6	.0	.3	.0	.0	.0	.0	.3	
1-2	.0	2.5	.4	.0	.0	.0	3.1	.0	.8	.9	.0	.0	.0	1.7	
3-4	.0	1.1	1.3	.5	.0	.0	3.0	.0	.6	.5	.4	.0	.0	1.5	
5-6	.0	.5	2.4	.8	.3	.0	4.0	.0	.0	1.6	.4	.0	.0	2.0	
7	.0	.0	2.0	.2	.0	.0	2.2	.0	.0	.5	.4	.0	.0	.8	
8-9	.0	.0	.3	.0	.2	.0	.5	.0	.0	.0	.3	.3	.0	.6	
10-11	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.6	.0	.0	.6	.0	.0	.0	.1	.0	.0	.1	
17-19	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	4.4	6.6	3.0	.5	.0	14.8	.0	1.7	3.5	1.5	.3	.0	7.0	98.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.1	3.0	.0	.0	.0	.0	5.2	
1-2	1.8	11.8	6.1	.0	.0	.0	19.7	
3-4	.6	10.0	13.6	3.6	.0	.0	27.9	
5-6	.0	2.1	11.2	3.9	.3	.0	17.6	
7	.0	.3	7.3	4.2	.3	.0	12.1	
8-9	.0	.0	2.4	2.7	2.1	.0	7.3	
10-11	.0	.0	1.2	2.1	.9	.0	4.2	
12	.0	.3	.0	.9	.3	.0	1.5	
13-16	.0	.0	.3	2.1	.9	.0	3.3	
17-19	.0	.0	.0	.3	.6	.0	.9	
20-22	.0	.0	.0	.0	.0	.3	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								330
TOT PCT	4.5	27.8	42.1	20.0	5.5	.3	100.0	

PERIOD: (OVER-ALL) 1949-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.1	3.8	5.4	6.0	2.7	2.2	.3	1.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	86	5
6-7	.0	.5	3.0	6.0	5.4	6.0	3.5	.8	2.2	.0	1.1	.5	.0	.0	.0	.0	.0	.0	.0	107	8
8-9	.0	.3	1.1	.8	2.2	3.0	4.1	2.4	3.0	.3	1.1	.3	.0	.0	.0	.0	.0	.0	.0	68	10
10-11	.0	.0	1.1	.8	3.3	2.2	1.9	.8	3.5	.8	.8	.5	.3	.0	.0	.0	.0	.0	.0	59	11
12-13	.0	.0	.3	.5	1.4	1.1	1.4	.5	.5	.8	.3	.3	.3	.0	.0	.0	.0	.0	.0	27	11
>13	.0	.0	.0	.5	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	7
INDET	1.1	.3	.5	.8	.3	.3	.5	.3	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	6
TOTAL	8	18	42	57	47	54	44	23	37	9	12	6	2	0	0	0	0	0	0	369	8
PCT	2.2	4.9	11.4	15.4	12.7	14.6	11.9	6.2	10.0	2.4	3.3	1.6	.5	.0	.0	.0	.0	.0	.0	100.0	

OCTOBER

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1881-1977

AREA 0030 SOUTH ISLAND (NW)
41.7S 169.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	23.7	2.9	8.1	.0	.0	.0	.0	32.4	4.3	.0	3.5	.0	1.2	1.2		57.5
NE	20.3	4.6	4.6	.0	.0	.0	.0	27.6	9.7	.0	5.5	.0	.5	.5		56.7
E	18.8	.0	5.3	.0	.0	.0	.0	24.1	3.0	.0	.0	.0	2.3	.0		70.7
SE	6.5	.0	5.2	.0	.0	.0	.0	11.7	.0	5.2	.0	.0	.0	.0		83.1
S	.0	3.3	1.5	.0	.0	.0	.0	6.9	4.4	.0	.0	.0	.0	.0		88.5
SW	3.2	5.1	.5	.0	.0	.0	.5	9.4	3.9	.5	.5	.0	1.3	.0		84.9
W	3.0	5.0	2.7	.0	.0	.0	.0	9.8	5.3	.0	3.2	.0	1.4	.0		80.4
NW	11.9	8.9	1.0	.0	.0	.0	.0	21.8	2.7	1.4	3.4	.0	.0	.0		72.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	14.3	.0	.0	.0	.0	.0	.0	14.3	.0	.0	.0	.0	.0	.0		85.7
TOT PCT	9.1	4.7	2.8	.0	.0	.0	.2	16.2	4.4	.5	2.0	.0	.9	.2		76.1
TOT OBS:	635															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	10.1	5.4	3.0	.0	.0	.0	.0	17.3	3.0	.0	1.2	.0	1.8	.0		76.8
06&09	8.9	4.5	1.1	.0	.0	.0	.0	14.5	3.9	.0	2.8	.0	1.1	.0		77.7
12&15	10.1	2.9	5.8	.0	.0	.0	.7	18.8	5.1	2.6	.7	.0	.0	.7		73.9
18&21	7.2	5.4	3.6	.0	.0	.0	.0	15.6	5.4	.0	3.0	.0	.6	.0		75.4
TOT PCT	9.0	4.6	3.2	.0	.0	.0	.2	16.4	4.7	.5	2.0	.0	.9	.2		76.1
TOT OBS:	652															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	9.1	4.6	2.0	1.0	.4		13.5	16.1	14.0	36.4	16.9	14.4	14.1	5.6	8.8	8.8
NE	.4	3.3	2.4	1.3	.6	.1		8.1	15.5	8.2	28.1	6.1	3.2	10.2	33.3	6.4	11.8
E	.2	2.3	1.4	.7	.0	.0		4.8	12.7	5.5	.0	1.8	6.4	4.3	11.1	7.3	2.9
SE	.5	1.2	1.1	.1	.0	.2		3.1	12.7	2.5	.0	.0	2.1	4.3	.0	5.6	8.8
S	.5	3.5	4.3	1.1	.5	.1		9.9	14.5	11.8	9.4	5.4	11.7	10.7	25.0	11.1	5.9
SW	1.5	9.3	11.6	5.8	.7	.0		28.9	15.2	23.4	3.1	39.6	25.5	30.4	19.4	26.2	27.9
W	1.2	6.6	7.2	2.6	1.5	.0		19.3	15.4	19.3	12.5	19.6	27.3	16.6	.0	22.1	19.4
NW	.8	4.3	3.4	1.6	.9	.1		11.3	15.2	14.3	12.5	10.0	12.2	8.0	5.6	11.1	15.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.1							1.1	.0	1.1	.0	.6	2.1	1.4	.0	1.4	.0
TOT OBS	49	202	267	113	38	7	736		15.0	187	8	163	47	140	9	148	34
TOT PCT	6.7	27.6	36.3	15.4	5.2	1.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.3	5.3	2.7	1.6	.6		13.5	16.1	14.9	16.3	13.6	8.8
NE	1.7	3.4	1.9	.9	.3		8.1	15.5	9.0	5.5	11.6	7.4
E	.8	2.7	.8	.3	.0		4.8	12.7	5.3	2.9	4.7	6.5
SE	1.2	1.4	.3	.0	.2		3.1	12.7	2.4	.5	4.0	8.2
S	1.6	4.7	3.0	.4	.2		9.9	14.5	11.7	6.8	11.6	10.2
SW	3.6	14.5	7.2	3.4	.2		28.9	15.2	22.6	36.4	29.7	26.5
W	4.0	7.5	5.2	1.9	.7		19.3	15.4	19.0	20.2	15.6	21.4
NW	2.3	4.9	2.5	1.6	.1		11.3	15.2	14.2	10.5	7.9	12.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.1						1.1	.0	1.0	1.0	1.3	1.1
TOT OBS	145	326	174	74	17	736		15.0	193	210	149	182
TOT PCT	19.7	44.3	23.6	10.1	2.3		100.0		100.0	100.0	100.0	100.0

OCTOBER

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1881-1977

AREA 0030 SOUTH ISLAND (NM)
41.7S 169.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.0	7.7	31.3	42.6	11.8	4.6	1.0	14.9	100.0	195
06&09	1.0	4.6	30.5	37.1	19.0	6.7	1.0	16.1	100.0	210
12&15	1.3	5.4	43.0	30.9	12.1	6.0	1.3	14.2	100.0	149
18&21	1.1	4.4	40.1	33.0	17.6	3.3	.5	14.3	100.0	182
TOT	8	41	262	297	113	38	7	15.0		736
PCT	1.1	5.6	35.6	36.3	15.4	5.2	1.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.7	.9	4.1	8.4		6.6
NE	.9	.9	3.6	3.4		6.1
E	.8	.7	1.6	2.0		5.5
SE	1.4	.2	.9	.9		4.3
S	2.2	1.6	3.7	2.9		5.0
SW	8.6	7.1	8.6	5.1		4.4
W	3.4	3.0	7.6	3.2		4.9
NW	1.9	.3	3.8	3.8		5.7
VAR	.0	.0	.0	.0		.6
CALM	.7	.0	.0	.5		4.2
TOT OBS	94	66	147	130	435	5.2
TOT PCT	21.6	14.7	33.8	29.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.7	.2	1.4	4.2	3.3	.9	.4	.2	.0	.0	3.9	
NE	.2	.1	.6	1.9	1.6	1.4	.7	.0	.0	.0	3.0	
E	.0	.0	.2	1.0	1.1	.5	.1	.0	.0	.0	2.1	
SE	.0	.0	.0	.3	.7	.2	.1	.0	.0	.0	2.1	
S	.0	.0	.4	1.9	2.1	.4	.1	.0	.2	.0	5.2	
SW	.0	.2	.1	2.4	4.9	2.5	1.0	.3	.1	.0	17.8	
W	.0	.0	.9	1.9	3.6	1.5	.9	.2	.0	.0	8.3	
NW	.2	.0	.0	2.4	3.0	1.4	.1	.0	.0	.0	2.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.7	
TOT OBS	5	2	17	66	68	38	15	3	1	0	200	435
TOT PCT	1.1	.5	3.9	15.2	20.2	8.7	3.4	.7	.2	.0	46.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >8500	.2	.2	.2	.2	.2	.2	.2	.2
* OR >5000	.7	.9	.9	.9	.9	.9	.9	.9
* OR >3500	4.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3
* OR >2000	11.2	12.6	12.8	12.8	12.8	12.8	12.8	12.8
* OR >1000	25.1	31.6	32.7	33.0	33.0	33.0	33.0	33.0
* OR >600	31.4	43.5	47.1	47.8	48.0	48.2	48.2	48.2
* OR >300	32.5	45.7	50.4	51.6	51.8	52.0	52.0	52.0
* OR >150	32.7	46.0	50.7	52.0	52.2	52.5	52.5	52.5
* OR > 0	33.0	46.2	51.1	53.1	53.6	53.8	53.8	53.8
TOTAL	147	206	228	237	239	240	240	240

TOTAL NUMBER OF OBS: 446 PCT FREQ NH <5/8: 46.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.0	12.7	10.0	9.4	6.4	5.7	7.8	12.1	27.7 .2	488

OCTOBER

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1881-1977

TABLE A

AREA 0030 SOUTH ISLAND (NW)
41.7S 169.5E

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.2	.2	.0	.0	.2	.2	.0	.0	.0	.6	
<1/2	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.2	.0	.0	.2	.2	.0	.0	.0	.6	
	PCP	.5	*	.0	.0	.0	.0	.2	.1	.0	.0	.8	
1/2<1	NO PCP	.5	.2	.0	.0	.0	.0	.0	.2	.0	.0	.8	
	TOT %	1.0	.2	.0	.0	.0	.0	.2	.2	.0	.0	1.6	
	PCP	.7	.6	.0	.0	.0	.0	.0	*	.0	.0	1.3	
1<2	NO PCP	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.5	
	TOT %	.8	.9	.0	.0	.0	.0	.0	*	.0	.0	1.7	
	PCP	1.1	.3	.3	.0	.0	.2	.2	.4	.0	.2	2.8	
2<5	NO PCP	.7	.2	.2	.2	.2	.2	.3	.2	.0	.0	2.2	
	TOT %	1.9	.5	.5	.2	.2	.4	.5	.7	.0	.2	5.0	
	PCP	1.8	1.1	.4	*	.6	1.9	1.0	1.7	.0	.0	8.3	
5<10	NO PCP	1.7	1.3	1.3	.5	2.6	6.4	4.4	3.5	.0	.5	22.2	
	TOT %	3.5	2.4	1.7	.5	3.2	8.3	5.4	5.2	.0	.5	30.6	
	PCP	.3	.2	.4	.3	.2	.6	.2	.2	.0	.0	2.4	
10+	NO PCP	6.1	4.3	2.5	2.0	6.7	20.0	10.8	5.2	.0	.5	58.1	
	TOT %	6.5	4.4	2.9	2.4	6.9	20.6	11.0	5.4	.0	.5	60.5	
	TOT OBS												635
	TOT PCT	13.6	8.5	5.2	3.0	10.3	29.4	17.2	11.5	.0	1.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.2	.0	.0	.2	.0	.0	.0		.3	
	22+	.0	.2	.0	.0	.0	.0	.2	.0	.0		.3	
	TOT %	.0	.2	.2	.0	.0	.2	.2	.0	.0	.0	.6	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.4	.2	.0	.0	.0	.0	.2	.0	.0		.8	
	22+	.6	.0	.0	.0	.0	.0	.0	.2	.0		.8	
	TOT %	1.0	.2	.0	.0	.0	.0	.2	.2	.0	.0	1.6	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.1	*	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.3	.0	.0	.0	.0	.0	.0	.0	.0		.3	
	22+	.4	.8	.0	.0	.0	.0	.0	*	.0		1.3	
	TOT %	.8	.9	.0	.0	.0	.0	.0	*	.0	.0	1.7	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
2<5	4-10	.6	*	.3	.2	.1	.2	.0	.2	.0		1.6	
	11-21	.3	.3	.2	.0	.1	*	.2	.3	.0		1.4	
	22+	1.0	.2	.0	.0	.0	.2	.3	.3	.0		1.9	
	TOT %	1.9	.5	.5	.2	.2	.4	.5	.7	.0	.2	5.0	
	0-3	.0	.3	.1	.2	.0	.3	.2	.3	.0	.5	1.9	
5<10	4-10	.6	1.0	.6	.1	.8	1.3	1.8	1.4	.0		7.5	
	11-21	1.6	.3	.6	.2	1.9	3.5	1.7	1.5	.0		11.3	
	22+	1.3	.7	.4	.0	.5	3.1	1.8	1.9	.0		9.7	
	TOT %	3.5	2.4	1.7	.5	3.2	8.3	5.4	5.1	.0	.5	30.5	
	0-3	.6	.2	.2	.3	.4	1.1	1.1	.5	.0	.5	4.7	
10+	4-10	3.6	2.1	1.6	1.1	3.0	8.4	3.9	2.8	.0		26.6	
	11-21	2.0	2.0	.9	.8	2.7	8.3	4.5	1.8	.0		23.0	
	22+	.3	.2	.3	.2	.8	2.7	1.5	.4	.0		6.3	
	TOT %	6.5	4.4	2.9	2.4	6.9	20.5	11.0	5.4	.0	.5	60.5	
	TOT OBS												636
	TOT PCT	13.7	8.5	5.2	3.0	10.3	29.3	17.2	11.6	.0	1.1	100.0	

OCTOBER

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1881-1977

AREA 0030 SOUTH ISLAND (NW)
41.7S 169.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00603	.7	.7	2.8	14.8	22.5	9.2	4.2	.0	.0	.0	54.9	45.1	142
06609	2.4	.8	3.2	16.7	18.3	4.0	4.0	2.4	.0	.0	51.6	48.4	126
12615	1.2	.0	2.4	8.2	20.0	3.5	1.2	.0	.0	.0	36.5	63.5	85
18621	.9	.0	6.1	16.7	15.8	14.9	2.6	.0	.9	.0	57.9	42.1	114
TOT	6	2	17	68	90	38	15	3	1	0	240	227	467
PCT	1.3	.4	3.6	14.6	19.3	8.1	3.2	.6	.2	.0	51.4	48.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	1.8	.6	6.5	23.8	67.3	168
06609	.0	1.7	2.8	3.4	35.8	56.4	179
12615	2.2	1.4	2.9	5.1	26.1	62.3	138
18621	.6	1.2	1.8	5.4	33.9	57.1	168
TOT	4	10	13	33	197	396	653
PCT	.6	1.5	2.0	5.1	30.2	60.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NW >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00603	.7	5.0	20.7	35.0	44.3	140
06609	2.4	6.5	24.4	28.5	47.2	123
12615	1.3	4.0	17.3	25.3	57.3	75
18621	.9	8.3	25.9	35.2	38.9	108
TOT	6	27	100	141	205	446
PCT	1.3	6.1	22.4	31.6	46.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
60/64	.0	.2	.0	.4	.8	2.0	2.0	1.4	34	6.7
55/59	.0	.0	.2	.6	4.1	14.6	15.6	13.4	256	50.5
50/54	.0	.0	.2	.0	4.9	11.0	13.4	7.1	186	36.7
45/49	.0	.0	.0	.0	.2	1.4	1.4	1.8	26	5.1
40/44	.0	.0	.0	.0	.2	.2	.2	.2	4	.8
TOTAL	0	1	2	5	69	148	167	121	507	100.0
PCT	.0	.2	.4	1.0	13.4	29.2	32.9	23.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
1.8	.3	.0	.2	.3	1.0	2.1	.8	.0	.2
10.0	4.6	2.1	.8	4.2	13.6	8.1	7.1	.0	.0
3.6	3.2	2.5	1.0	3.5	12.9	6.7	3.0	.0	.4
.0	.2	.1	.4	.8	2.0	1.4	.1	.0	.0
.0	.0	.0	.0	.1	.2	.4	.0	.0	.0
15.4	8.3	4.7	2.4	8.9	29.9	18.7	11.0	.0	.6

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00603	65	64	62	56	51	44	42	56.3	190
06609	66	63	60	56	50	45	44	55.7	207
12615	61	60	58	55	50	47	43	54.5	150
18621	61	59	58	54	48	46	46	53.6	183
TOT	66	63	60	55	49	46	42	55.1	730

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	3.5	17.0	30.5	29.8	19.1	80	141
06609	.0	2.0	14.8	28.2	32.2	22.8	82	149
12615	.0	.0	6.6	34.9	32.1	26.4	83	106
18621	.0	.0	8.7	26.0	38.6	26.8	84	127
TOT	0	8	64	155	173	123	82	523

OCTOBER

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1881-1977

AREA 0030 SOUTH ISLAND (NW)
41.7S 169.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
9/10	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
7/8	.0	.0	.0	.0	1.0	.2	.2	7	.0	1.4
6	.0	.0	.0	.0	.8	.8	.0	8	.0	1.6
5	.0	.0	.0	.6	1.8	1.2	.0	18	.0	3.5
4	.0	.0	.2	.4	2.5	.4	.0	18	.2	3.3
3	.0	.0	.0	1.6	3.1	.4	.0	26	.4	4.7
2	.0	.0	.4	2.0	4.7	.6	.0	39	.0	7.6
1	.0	.0	.4	4.7	5.9	.2	.0	57	.6	10.6
0	.0	.0	1.2	9.8	6.3	.0	.0	88	.4	16.8
-1	.0	.0	1.0	11.2	1.4	.0	.0	69	.2	13.3
-2	.0	.2	3.5	9.0	1.6	.0	.0	73	.4	13.9
-3	.0	.4	1.4	5.9	1.0	.0	.0	44	.4	8.2
-4	.0	.4	2.9	1.4	.0	.0	.0	24	.0	4.7
-5	.0	.2	1.8	1.6	.4	.0	.0	20	.0	3.9
-6	.0	.4	.0	.4	.0	.0	.0	4	.0	.8
-7/-8	.0	.6	.4	.4	.0	.0	.0	7	.0	1.4
-9/-10	.6	.6	.0	.0	.0	.0	.0	6	.0	1.2
-11/-13	.2	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	4	14	67	249	156	19	2	511	13	498
PCT	.8	2.7	13.1	48.7	30.5	3.7	.4	100.0	2.5	97.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.5	.0	.0	.0	.0	1.1
1-2	.4	3.8	1.0	.0	.0	.0	5.2
3-4	.0	1.5	2.0	.2	.0	.0	3.7
5-6	.0	.2	1.9	.5	.3	.0	2.8
7	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.3	.8	.0	1.0
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.6	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	6.0	5.2	1.2	1.0	.6	15.0

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.5
1-2	.3	1.9	.3	.0	.0	.0	2.4
3-4	.0	.2	2.1	.3	.0	.0	2.5
5-6	.0	.6	1.0	.1	.0	.0	1.7
7	.0	.0	.3	.4	.0	.0	.7
8-9	.0	.0	.0	.6	.3	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.3	.3	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	3.0	3.6	1.6	.6	.3	9.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.8	.0	.0	.0	.0	1.1
1-2	.0	1.1	.5	.0	.0	.0	1.6
3-4	.0	.8	.3	.3	.0	.0	1.3
5-6	.0	.3	.5	.0	.0	.0	.8
7	.0	.0	.0	.7	.0	.0	.7
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.0	1.3	1.2	.0	.0	5.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5
1-2	.0	.6	.3	.0	.0	.0	.9
3-4	.3	.0	.0	.3	.0	.0	.5
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.2	.8	.3	.0	.0	2.5

PERIOD: (OVER-ALL) 1963-1977 OCTOBER AREA 0030 SOUTH ISLAND (NW)
41.7S 169.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2	1.3	.7	.6	.0	.0	.0	2.0
1-2	.0	1.5	.9	.0	.0	.0	2.0	.0	5.5	1.3	.0	.0	.0	6.8
3-4	.0	1.0	1.8	.2	.0	.0	3.0	.0	5.4	3.8	1.2	.0	.0	10.4
5-6	.0	.5	1.4	.8	.0	.0	3.0	.0	.3	2.9	.3	.0	.0	3.5
7	.0	.0	.5	.3	.0	.0	.8	.0	.3	.7	.9	.0	.0	1.9
8-9	.0	.0	.0	.2	.0	.0	.2	.0	.0	1.1	.3	.3	.0	1.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.3	.0	.8
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.3	.3	.0	1.4
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.1	4.4	1.4	.0	.0	9.1	1.3	12.2	10.9	3.9	.9	.0	29.2

	W							NW						TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	1.5	1.8	.0	.0	.0	.0	3.3	.3	.3	.0	.0	.0	.0	.5	
1-2	.0	1.9	1.0	.0	.0	.0	2.8	.1	1.6	.1	.0	.0	.0	1.9	
3-4	.0	1.3	2.3	.2	.0	.0	3.6	.0	2.2	1.8	.1	.0	.0	4.1	
5-6	.0	.0	2.7	.8	.0	.0	3.6	.0	.0	2.3	.3	.0	.0	2.5	
7	.0	.5	.8	.4	.3	.0	1.9	.0	.0	.3	.3	.3	.0	.9	
8-9	.0	.0	.0	.3	.3	.0	.5	.0	.0	.3	.0	.0	.0	.3	
10-11	.0	.3	.2	.0	.3	.0	1.3	.0	.0	.1	.0	.0	.0	.1	
12	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
17-19	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.5	5.7	6.9	1.7	1.9	.0	17.7	.4	4.1	4.7	.7	.3	.2	10.4	99.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.2	4.9	.0	.0	.0	.0	10.1	
1-2	.8	17.8	4.9	.0	.0	.0	23.5	
3-4	.3	12.3	13.9	2.7	.0	.0	29.2	
5-6	.0	1.9	13.1	2.7	.3	.0	18.0	
7	.3	.8	3.0	3.0	.5	.0	7.7	
8-9	.0	.0	1.4	1.9	1.6	.0	4.9	
10-11	.0	.3	.5	.5	1.1	.0	2.5	
12	.0	.0	.8	.5	.5	.0	1.9	
13-16	.0	.0	.0	.3	.3	1.1	1.6	
17-19	.0	.0	.0	.3	.3	.0	.5	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								366
TOT PCT	6.6	38.0	37.7	12.0	4.6	1.1	100.0	

PERIOD: (OVER-ALL) 1950-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	3.4	4.1	5.6	3.9	1.0	1.2	.7	.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	87	5
6-7	.0	.5	5.6	9.8	5.4	3.4	3.4	1.7	1.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	129	7
8-9	.0	.2	.7	4.1	7.1	4.4	3.2	1.2	3.4	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	106	9
10-11	.0	.2	.2	1.9	2.4	1.7	.5	.5	1.2	.0	.7	.2	.0	.0	.0	.0	.0	.0	.0	33	9
12-13	.0	.0	1.5	1.0	.5	.5	1.0	.0	.5	.0	.2	.5	.0	.0	.0	.0	.0	.0	.0	23	9
>13	.0	.0	.0	1.0	.5	.5	.7	.2	.2	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	15	10
INDET	.2	.0	.0	1.0	1.0	.0	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	11	8
TOTAL	3	18	50	96	85	47	42	18	28	10	7	3	1	0	0	0	0	0	0	415	7
PCT	.7	4.4	12.2	23.9	20.7	11.5	10.2	4.4	6.8	2.4	1.7	.7	.2	.0	.0	.0	.0	.0	.0	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1945-1977
(OVER-ALL) 1867-1977

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	11.7	.6	8.6	.0	.0	.0	.0	20.9	4.9	2.0	11.2	.0	2.3		.0	58.7
NE	10.2	1.5	7.3	.0	.0	.0	.0	17.5	2.2	.0	3.6	1.5	.7		.0	74.5
E	8.8	.0	3.4	.0	.0	.0	.0	12.3	7.8	.0	1.0	.0	1.5		.0	77.5
SE	4.2	.0	1.0	.0	.0	.0	.0	5.2	.0	4.2	4.2	.0	5.2		.0	85.4
S	2.5	5.8	1.4	.0	.0	.0	.0	9.7	4.0	.0	2.9	.0	1.1		.0	82.3
SW	2.6	2.9	1.2	.0	.0	.0	.8	6.6	2.9	.0	1.8	.2	2.6		.0	85.8
W	2.9	3.6	4.0	.0	.0	.0	.6	11.1	6.9	.0	2.5	.6	4.6		.0	74.3
NW	10.6	2.2	7.9	.0	.0	.0	.0	20.7	3.1	.2	4.7	.0	.9		.0	70.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	5.9	.0	.0	.0	.0	5.9	.0	.0	.0	.0	11.8		.0	82.4
TOT PCT	6.2	2.4	4.5	.0	.0	.0	.3	13.0	4.1	.4	3.8	.3	2.5		.0	76.0
TOT OBS:	713															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	4.2	2.4	3.6	.0	.0	.0	.6	10.7	4.9	.0	3.6	.0	1.8		.0	79.2
06&09	4.6	3.7	4.2	.0	.0	.0	.0	12.5	3.7	.5	2.3	.5	3.2		.0	77.8
12&15	10.2	.6	6.0	.0	.0	.0	.0	16.3	3.4	.6	4.2	.0	.6		.0	74.7
18&21	6.1	2.2	4.4	.0	.0	.0	.6	12.7	3.9	.6	6.6	.6	4.4		.0	71.3
TOT PCT	6.2	2.3	4.5	.0	.0	.0	.3	13.0	4.0	.4	4.1	.3	2.6		.0	75.8
TOT OBS:	731															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	3.8	5.5	2.1	.6	.0		12.8	15.5	13.6	.0	12.8	15.5	14.9	10.4	10.0	10.5
NE	.9	4.6	2.9	.5	.3	.0		9.3	11.3	8.9	13.9	8.2	6.1	8.7	8.3	12.1	11.2
E	.4	3.4	2.4	.6	.1	.0		6.8	11.7	7.7	19.4	3.7	6.1	5.6	10.4	8.2	15.1
SE	.5	1.4	1.3	.2	.0	.0		3.5	10.4	1.7	.0	2.6	1.9	1.6	14.6	7.6	5.3
S	.5	4.1	3.7	1.5	.1	.0		10.0	13.3	9.9	8.3	12.5	15.5	8.3	6.3	7.6	9.2
SW	.7	5.8	10.1	4.7	1.1	.0		22.3	16.5	24.4	5.6	25.4	14.0	22.3	10.4	21.8	20.4
W	.7	4.7	7.9	4.2	.4	.0		17.9	15.7	19.4	36.1	17.9	20.1	17.5	8.3	16.0	16.4
NW	.6	4.8	7.2	2.2	.3	.0		15.2	14.2	13.3	16.7	15.9	19.3	16.3	14.6	14.3	11.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3							2.3	.0	1.1	.0	1.1	1.5	4.7	16.7	2.4	.0
TOT OBS	61	270	340	134	24	0	829		14.2	175	9	190	66	169	12	170	38
TOT PCT	7.4	32.6	41.0	16.2	2.9	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.7	6.2	3.6	1.1	.2		12.8	15.5	12.9	13.5	14.6	10.1
NE	2.4	5.0	1.5	.2	.1		9.3	11.3	9.1	7.6	8.7	11.9
E	1.9	3.5	1.2	.1	.1		6.8	11.7	8.3	4.3	5.9	9.5
SE	1.1	1.9	.5	.0	.0		3.5	10.4	1.6	2.4	2.5	7.2
S	2.4	4.2	2.9	.6	.0		10.0	13.3	9.8	13.3	8.1	7.9
SW	3.0	8.8	7.6	2.9	.0		22.3	16.5	23.5	22.5	21.5	21.5
W	1.7	8.7	6.3	1.2	.0		17.9	15.7	20.2	18.5	16.9	16.1
NW	2.7	7.2	4.4	.8	.0		15.2	14.2	13.5	16.8	16.2	13.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.3						2.3	.0	1.1	1.2	5.5	1.9
TOT OBS	159	377	232	58	3	829		14.2	184	236	181	208
TOT PCT	19.2	45.5	28.0	7.0	.4		100.0		100.0	100.0	100.0	100.0

NOVEMBER

PERIOD: (PRIMARY) 1945-1977
(OVER-ALL) 1867-1977

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&09	1.1	5.4	35.3	36.4	17.4	4.3	.0	14.5	100.0	184
06&09	1.2	4.3	27.7	47.3	17.2	2.3	.0	14.8	100.0	256
12&15	5.5	4.4	37.0	35.9	14.4	2.8	.0	13.2	100.0	181
18&21	1.9	6.3	32.2	41.8	15.4	2.4	.0	13.9	100.0	208
TOT	19	42	270	340	134	24	0	14.2		829
PCT	2.3	5.1	32.6	41.0	16.2	2.9	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.4	.7	2.5	6.1		6.4
NE	1.9	1.0	4.3	3.7		5.8
E	2.0	1.1	2.5	2.6		5.2
SE	1.5	.7	.9	.3		3.5
S	2.6	1.4	3.0	1.3		4.4
SW	5.8	6.4	8.3	3.4		4.5
W	3.3	3.8	6.9	4.1		5.0
NW	2.5	1.9	3.8	6.2		5.8
VAR	.0	.0	.0	.0		.0
CALM	.8	.4	1.0	.0		3.4
TOT OBS	104	83	159	132	478	5.1
TOT PCT	21.8	17.4	33.3	27.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.4	.6	2.1	2.1	.6	.2	.4	.0	.0	4.2	
NE	.2	.1	.3	1.9	1.7	1.4	.6	.1	.0	.0	4.7	
E	.0	.2	.2	.6	1.0	.9	.6	.0	.0	.0	4.6	
SE	.0	.0	.2	.2	.3	.0	.2	.0	.0	.0	2.5	
S	.0	.0	.2	.4	1.8	.2	.2	.0	.0	.0	5.5	
SW	.2	.0	.6	3.6	2.0	2.2	.3	.0	.0	.0	15.0	
W	.2	.0	.2	2.2	2.6	.9	.7	.0	.0	.2	11.0	
NW	.7	.4	.2	2.6	1.8	1.3	.5	.0	.0	.0	6.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.2	.0	.2	.0	.0	1.7	
TOT OBS	6	5	12	65	65	37	16	3	0	1	268	478
TOT PCT	1.3	1.0	2.5	13.6	13.6	7.7	3.3	.6	.0	.2	56.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >8500	.0	.2	.2	.2	.2	.2	.2	.2
* OR >5000	.6	.8	1.0	1.0	1.0	1.0	1.0	1.0
* OR >3500	3.7	4.1	4.3	4.3	4.3	4.3	4.3	4.3
* OR >2000	9.2	10.5	12.1	12.1	12.1	12.1	12.1	12.1
* OR >1000	16.0	22.5	25.4	25.4	25.4	25.6	25.6	25.6
* OR >600	20.7	32.0	38.5	39.1	39.1	39.5	39.5	39.5
* OR >300	21.7	33.8	41.0	41.6	41.6	42.0	42.0	42.0
* OR >150	21.9	34.2	41.4	42.4	42.4	42.8	42.8	42.8
* OR > 0	21.9	34.8	42.4	43.6	43.6	44.3	44.3	44.3
TOTAL	107	170	207	213	213	216	216	216

TOTAL NUMBER OF OBS: 488 PCT FREQ NH <5/8: 55.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
4.6	15.4	12.9	11.3	7.9	4.1	8.8	9.3	22.4	1.1	557

PERIOD: (PRIMARY) 1945-1977
(OVER-ALL) 1867-1977

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.2	.1	.0	.0	.0	.0	.0	.1	.0	.0	.4	
<1/2	NO PCP	.0	.1	.0	.0	.0	.0	.1	.3	.0	.0	.6	
	TOT %	.2	.3	.0	.0	.0	.0	.1	.4	.0	.0	1.0	
	PCP	.1	.3	.0	.0	.0	.0	.1	.0	.0	.0	.6	
1/2<1	NO PCP	1.0	.4	.4	.1	.0	.1	.1	.4	.0	.0	2.7	
	TOT %	1.1	.6	.4	.1	.0	.1	.3	.4	.0	.0	3.2	
	PCP	.1	.3	.1	.0	.0	.0	.0	.4	.0	.0	1.0	
1<2	NO PCP	.2	.0	.0	.0	.0	.0	.0	.4	.0	.0	.6	
	TOT %	.4	.3	.1	.0	.0	.0	.0	.8	.0	.0	1.5	
	PCP	.6	.4	.5	.2	.1	.5	.4	1.1	.0	.0	3.8	
2<5	NO PCP	.8	.5	.2	.0	.1	.7	.4	.6	.0	.0	3.4	
	TOT %	1.4	.9	.7	.2	.2	1.1	.8	1.7	.0	.0	7.2	
	PCP	1.2	.5	.2	.0	.7	.5	1.1	1.4	.0	.1	5.8	
5<10	NO PCP	2.4	1.3	1.3	.6	2.9	4.1	3.3	3.8	.0	.4	19.8	
	TOT %	3.6	1.8	1.5	.6	3.6	4.7	4.4	4.8	.0	.6	25.6	
	PCP	.3	.0	.0	.0	.1	.6	.2	.3	.0	.0	1.5	
10+	NO PCP	5.3	5.6	4.4	2.5	5.7	16.5	11.0	7.1	.0	1.8	60.0	
	TOT %	5.5	5.6	4.4	2.5	5.9	17.1	11.2	7.4	.0	1.8	61.5	
	TOT OBS												712
	TOT PCT	12.3	9.6	7.2	3.4	9.7	23.1	16.8	15.4	.0	2.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.1	.0	.0	.0	.0	.0	.0	.1	.0		.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.1	.3	.0	.0	.0	.0	.1	.2	.0		.7	
	TOT %	.2	.3	.0	.0	.0	.0	.1	.4	.0	.0	1.0	
	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
1/2<1	4-10	.0	.2	.1	.0	.0	.1	.3	.0	.0		.7	
	11-21	1.0	.3	.1	.0	.0	.0	.0	.4	.0		1.8	
	22+	.1	.1	.1	.0	.0	.0	.0	.1	.0		.6	
	TOT %	1.1	.6	.4	.1	.0	.1	.3	.6	.0	.0	3.2	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.1	.0		.1	
	11-21	.1	.2	.1	.0	.0	.0	.0	.4	.0		.8	
	22+	.2	.1	.0	.0	.0	.0	.0	.2	.0		.6	
	TOT %	.4	.3	.1	.0	.0	.0	.0	.8	.0	.0	1.5	
	0-3	.0	.1	.0	.0	.0	.0	.1	.1	.0	.0	.4	
2<5	4-10	.3	.4	.3	.0	.1	.2	.1	.3	.0		1.7	
	11-21	.5	.2	.4	.2	.1	.3	.4	.4	.0		2.4	
	22+	.7	.2	.1	.0	.0	.6	.2	.9	.0		2.7	
	TOT %	1.4	.9	.7	.2	.2	1.1	.8	1.7	.0	.0	7.2	
	0-3	.1	.3	.0	.0	.0	.0	.1	.1	.0	.6	1.3	
5<10	4-10	.6	.7	.5	.1	1.6	.8	1.2	1.2	.0		6.6	
	11-21	1.9	.8	.8	.3	1.1	1.6	1.8	2.9	.0		11.2	
	22+	1.0	.1	.3	.1	.9	2.2	1.3	.7	.0		6.6	
	TOT %	3.6	1.8	1.5	.6	3.6	4.7	4.4	4.9	.0	.6	25.7	
	0-3	.7	.6	.4	.3	.5	.8	.5	.5	.0	1.8	6.0	
10+	4-10	2.3	3.2	3.1	1.4	2.0	4.9	3.2	3.3	.0		23.3	
	11-21	2.2	1.6	.8	.7	2.3	8.0	4.9	3.1	.0		23.7	
	22+	.4	.1	.1	.1	1.1	3.4	2.6	.6	.0		8.4	
	TOT %	5.5	5.6	4.4	2.5	5.9	17.1	11.2	7.4	.0	1.8	61.4	
	TOT OBS												713
	TOT PCT	12.2	9.6	7.2	3.4	9.7	23.0	16.8	15.7	.0	2.4	100.0	

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PERIOD: (PRIMARY) 1945-1977
(OVER-ALL) 1867-1977

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.7	.7	2.9	9.5	8.8	11.7	5.1	1.5	.0	.0	40.9	59.1	137
06&09	.6	1.3	1.9	15.5	16.8	6.5	2.6	.0	.0	.6	45.8	54.2	155
12&15	3.1	1.0	1.0	9.3	9.3	4.1	2.1	.0	.0	.0	29.9	70.1	97
18&21	1.5	.8	3.1	16.8	15.3	6.1	2.3	1.5	.0	.0	47.3	52.7	131
TOT	7	5	12	68	67	38	16	4	0	1	218	302	520
PCT	1.3	1.0	2.3	13.1	12.9	7.3	3.1	.8	.0	.2	41.9	58.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.6	2.4	.0	10.1	19.6	67.3	168
06&09	1.4	2.3	.9	5.6	33.0	56.7	215
12&15	.6	2.4	4.2	4.8	19.2	68.9	167
18&21	1.6	5.5	1.1	8.2	28.6	54.9	182
TOT	4	23	11	52	188	450	732
PCT	1.1	3.1	1.5	7.1	25.7	61.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.7	4.5	18.7	23.9	57.5	134
06&09	1.4	4.9	24.3	25.0	50.7	144
12&15	3.6	4.8	15.7	18.1	66.3	83
18&21	1.6	7.1	27.6	21.3	51.2	127
TOT	8	26	108	110	270	488
PCT	1.6	5.3	22.1	22.5	55.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.2	.4	.4	.7	.2	10	1.8
60/64	.0	.0	.2	.2	2.6	4.4	5.3	4.4	97	17.0
55/59	.0	.0	.2	1.1	5.4	12.0	16.9	17.8	303	53.3
50/54	.0	.0	.0	1.1	2.3	6.7	7.7	6.2	136	23.9
45/49	.0	.0	.0	.4	.4	.9	1.1	1.4	23	4.0
TOTAL	0	0	2	14	63	138	180	170	569	100.0
PCT	.0	.0	.4	2.8	11.1	24.3	31.6	29.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.3	*	.3	.0	.0	.3	.6	.3	.0	.0
3.1	2.5	1.7	.2	1.4	2.8	3.1	1.7	.0	.5
6.5	5.8	4.1	1.0	4.1	8.5	10.8	11.1	.0	1.2
1.4	2.5	.7	1.1	2.4	8.1	5.4	2.2	.0	.2
.1	.4	.1	.4	1.2	1.1	.6	.0	.0	.0
11.5	11.3	7.0	2.7	9.1	20.8	20.4	15.3	.0	1.9

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	68	66	63	57	50	47	46	57.4	181
06&09	67	66	63	57	51	49	48	57.3	263
12&15	66	64	61	56	51	46	45	56.2	183
18&21	66	64	62	57	50	47	46	56.3	207
TOT	68	66	63	57	50	47	45	56.8	814

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	5.0	20.1	25.2	25.9	23.7	80	139
06&09	.0	3.4	10.3	28.0	31.4	26.9	82	175
12&15	.0	3.2	6.5	21.8	33.1	35.5	85	124
18&21	.0	1.4	6.5	21.7	35.5	34.8	85	138
TOT	0	19	63	141	181	172	83	576

PERIOD: (PRIMARY) 1945-1977
(OVER-ALL) 1867-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.2	.2	.2	3	.0	.5
9/10	.0	.0	.0	.2	.2	.2	3	.0	.5
7/8	.0	.0	.0	.3	.2	.3	5	.0	.8
6	.0	.0	.0	.3	.3	.0	4	.0	.7
5	.0	.0	.0	1.3	2.9	.0	25	.2	4.0
4	.0	.0	.2	2.0	2.5	.3	30	.3	4.7
3	.0	.0	.8	3.4	1.0	.0	31	.2	5.1
2	.0	.0	1.7	6.4	1.0	.2	55	1.2	8.1
1	.0	.2	4.2	7.2	1.2	.2	77	1.3	11.4
0	.0	1.0	6.7	7.9	2.7	.2	110	1.0	17.5
-1	.0	.7	6.9	4.5	1.0	.0	78	.2	13.0
-2	.2	1.3	5.6	3.2	1.0	.0	67	.0	11.3
-3	.0	2.2	2.7	1.0	1.0	.2	42	.2	6.9
-4	.2	1.9	1.2	.8	.0	.2	25	.0	4.2
-5	.2	2.2	1.0	1.2	.0	.0	27	.2	4.4
-6	.5	.3	.2	.0	.0	.0	6	.0	1.0
-7/-8	.3	.2	.0	.2	.0	.0	4	.0	.7
-9/-10	.2	.2	.0	.0	.0	.0	2	.0	.3
TOTAL	9	60	185	239	90	11	594	28	566
PCT	1.5	10.1	31.1	40.2	15.2	1.9	100.0	4.7	95.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.7	.0	.0	.0	.0	.9
1-2	.5	1.1	.4	.0	.0	.0	2.0
3-4	.0	.9	1.9	.0	.0	.0	2.8
5-6	.0	.2	1.5	.9	.0	.0	2.5
7	.0	.0	.5	.8	.0	.0	1.4
8-9	.2	.0	.2	.2	.0	.0	.7
10-11	.2	.0	.0	.0	.0	.0	.2
12	.0	.2	.2	.0	.0	.0	.4
13-16	.0	.0	.2	.0	.4	.0	.6
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	3.0	4.8	2.1	.4	.0	11.5

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.7	.0	.0	.0	.0	1.2
1-2	.2	1.8	.2	.0	.0	.0	2.3
3-4	.0	2.9	1.3	.5	.0	.0	4.7
5-6	.0	.1	1.5	.3	.2	.0	2.1
7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.1	.0	.0	.0	.0	.0	.1
12	.0	.3	.0	.0	.0	.0	.3
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.2	.0	.5
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	5.8	3.3	1.1	.5	.0	11.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	1.3	.0	.0	.0	.0	1.3
3-4	.0	1.8	1.5	.2	.0	.0	3.5
5-6	.2	.0	1.1	.2	.0	.0	1.6
7	.0	.0	.2	.2	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.2	.0	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.2	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.7	2.8	.7	.2	.0	8.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.2	.1	.2	.0	.0	.0	.5
3-4	.0	.8	.3	.0	.0	.0	1.1
5-6	.0	.2	.2	.0	.0	.0	.5
7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.9	.8	.0	.0	.0	3.0

PERIOD: (OVER-ALL) 1964-1977

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TABLE 18 (CONT)

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.2	.0	.0	.0	.0	.7
1-2	.0	1.8	.5	.0	.0	.0	2.2
3-4	.0	.4	1.1	.0	.0	.0	1.5
5-6	.0	.0	.5	.7	.0	.0	1.1
7	.0	.0	.4	.4	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.4	2.4	1.4	.0	.0	6.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	1.2	.0	.0	.0	.0	1.9
1-2	.2	3.0	2.0	.0	.0	.0	5.1
3-4	.0	1.2	3.2	.2	.0	.0	4.7
5-6	.0	.5	3.2	1.1	.0	.0	4.8
7	.0	.0	.8	.9	.2	.0	1.9
8-9	.0	.0	.7	.6	.2	.0	1.5
10-11	.0	.0	.2	.8	.0	.0	1.1
12	.0	.2	.5	.2	.0	.0	.9
13-16	.0	.0	.2	.5	.0	.0	.8
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.3	.2	.0	.5
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	6.1	10.8	4.9	.9	.0	23.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.5	.0	.0	.0	.0	1.2
1-2	.0	2.2	1.8	.0	.0	.0	4.1
3-4	.0	1.8	2.3	.0	.0	.0	4.1
5-6	.0	.2	2.5	1.0	.0	.0	3.7
7	.0	.2	.5	1.0	.2	.0	2.0
8-9	.0	.0	.7	.9	.2	.0	1.9
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.2	.0	.0	.0	.2
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.7	.0	.0	.7
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.9	8.0	4.3	.5	.0	18.4

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.0	.2	.0	.0	.0	1.2	
1-2	.5	1.5	.8	.0	.0	.0	2.8	
3-4	.0	1.1	2.4	.0	.0	.0	3.5	
5-6	.0	.7	3.0	.4	.0	.0	4.0	
7	.0	.0	.1	.4	.0	.0	.5	
8-9	.0	.2	.0	1.1	.2	.0	1.6	
10-11	.0	.0	.2	.2	.0	.0	.5	
12	.0	.0	.1	.2	.0	.0	.3	
13-16	.0	.0	.2	.5	.1	.0	.8	
17-19	.0	.0	.0	.2	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	4.5	7.1	3.1	.3	.0	15.4	98.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.7	6.1	.2	.0	.0	.0	11.0	
1-2	1.6	12.7	5.9	.0	.0	.0	20.2	
3-4	.0	10.8	13.8	.9	.0	.0	25.6	
5-6	.2	1.9	13.4	4.5	.2	.0	20.2	
7	.0	.2	2.6	3.8	.5	.0	7.0	
8-9	.2	.2	1.6	2.8	.7	.0	5.6	
10-11	.2	.2	.5	1.6	.0	.0	2.6	
12	.0	.7	.9	.5	.0	.0	2.1	
13-16	.0	.2	.7	1.2	.5	.0	2.6	
17-19	.0	.0	.0	.5	.2	.0	.7	
20-22	.0	.0	.0	.7	.2	.0	.9	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.9	.2	.0	1.2	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.0	33.1	39.7	17.4	2.8	.0	100.0	426

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.0	2.6	5.3	4.6	1.5	1.5	.9	.4	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	96	4
6-7	.0	.2	2.0	4.0	5.3	4.6	2.9	1.3	2.6	1.5	.7	.0	.2	.0	.0	.0	.0	.0	.0	115	9
8-9	.0	.0	.9	3.3	4.4	5.5	4.9	3.5	2.2	.7	.4	.0	.2	.0	.0	.0	.0	.0	.0	118	9
10-11	.0	.7	.4	.7	.9	1.3	2.6	.9	2.2	.4	.4	.0	.7	.0	.0	.0	.0	.0	.0	51	11
12-13	.0	.0	.9	.9	.7	.2	.9	.2	2.9	1.1	1.1	.0	.4	.0	.0	.0	.0	.0	.0	42	13
>13	.0	.0	.0	.2	.0	.2	.2	.2	.2	.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	9	15
INVET	1.1	.0	.0	.7	.7	.4	.9	.4	.4	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	22	8
TOTAL	23	16	43	65	61	63	60	32	48	18	14	2	8	0	0	0	0	0	0	493	9
PCT	5.1	3.5	9.5	14.3	13.5	13.9	13.2	7.1	10.6	4.0	3.1	.4	1.8	.0	.0	.0	.0	.0	.0	100.5	

DECEMBER

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1873-1977

AREA 0030 SOUTH ISLAND (NW)
42.1S 167.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	22.1	3.5	7.2	.0	.0	.0	.0	32.8	5.1	.0	8.0	.0	2.7		.0	51.5
NE	24.2	6.3	4.8	.0	.0	.0	1.5	36.8	8.6	1.5	3.[illegible]	.0	2.2		.0	48.7
E	14.2	.0	6.4	.0	.0	.0	.0	20.6	5.7	.0	.0	.0	.0		.0	73.8
SE	4.9	7.4	2.5	.0	.0	.0	.0	14.8	9.9	.0	4.9	.0	.0		.0	70.4
S	2.2	6.5	5.0	.0	.0	.0	.0	13.7	1.4	.0	2.2	.0	2.2		.0	80.6
SW	3.4	5.1	2.2	.0	.0	.0	.7	11.4	2.9	1.4	2.9	.0	2.5		.0	79.5
W	7.4	4.4	1.1	.0	.0	.0	.0	12.9	2.7	.0	4.9	.0	4.4		.0	75.0
NW	4.1	2.1	9.2	.0	.0	.0	.0	15.4	4.5	.0	12.7	.0	1.4		.0	64.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	5.9	.0	.0	.0	.0	5.9	.0	.0	.0	.0	11.8		.0	82.4
TOT PCT	9.8	4.3	4.6	.0	.0	.0	.3	19.0	4.9	.5	5.0	.0	2.6		.0	68.8
TOT OBS:	605															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.9	3.4	5.5	.0	.0	.0	1.4	17.2	7.6	.7	3.4	.0	4.8		.0	66.9
06&09	8.6	4.0	3.4	.0	.0	.0	.0	16.1	2.9	.6	8.0	.0	.6		.0	71.8
12&15	11.1	3.7	3.0	.0	.0	.0	.0	17.8	5.2	.7	3.7	.0	.7		.0	72.6
18&21	12.6	5.4	6.0	.0	.0	.0	.0	24.0	3.0	.6	4.2	.0	4.2		.0	64.7
TOT PCT	9.8	4.2	4.5	.0	.0	.0	.3	18.8	4.5	.6	5.0	.0	2.6		.0	68.9
TOT OBS:	621															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	5.6	4.0	2.7	.4	.0		14.4	14.6	11.3	25.0	12.5	13.5	11.6	31.3	20.1	16.9
NE	.7	4.1	3.7	2.1	.2	.0		10.9	14.2	11.7	8.3	9.5	6.3	10.3	22.9	9.7	21.5
E	.3	3.5	2.1	.6	.1	.0		6.6	11.5	6.3	.0	5.7	5.8	7.9	12.5	7.3	3.5
SE	.6	1.3	.9	.4	.0	.0		3.2	10.1	2.8	16.7	.3	1.0	3.1	8.3	5.3	7.0
S	.2	4.2	5.2	2.0	.0	.0		11.6	13.9	8.0	12.5	13.0	13.0	12.3	8.3	13.7	9.9
SW	.6	7.8	10.5	3.6	.8	.1		23.4	15.2	24.7	37.5	30.7	22.6	23.1	8.3	16.1	24.4
W	.4	6.2	4.9	1.8	.0	.2		15.6	13.2	15.2	.0	14.5	19.7	19.7	4.2	16.1	5.2
NW	.3	5.6	4.7	1.0	.1	.1		11.8	12.5	17.0	.0	13.0	16.3	8.6	4.2	8.0	11.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.5							2.5	.0	3.1	.0	.7	1.9	3.4	.0	3.8	.0
TOT OBS	46	279	289	102	12	3	724		13.4	160	6	148	52	146	12	157	43
TOT PCT	6.4	38.4	39.1	14.1	1.7	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.9	6.2	3.9	1.3	.2		14.4	14.6	11.7	12.8	13.1	19.4
NE	2.1	4.7	3.2	.7	.1		10.9	14.2	11.6	8.6	11.2	12.3
E	1.5	4.1	.8	.1	.0		6.6	11.5	6.0	5.8	8.2	6.5
SE	1.6	.9	.8	.0	.0		3.2	10.1	3.3	.5	3.5	5.6
S	1.8	5.9	3.5	.4	.0		11.6	13.9	8.1	13.0	12.0	12.9
SW	2.5	12.1	7.0	1.6	.3		23.4	15.2	25.2	28.6	22.0	17.9
W	2.8	9.0	3.0	.6	.2		15.6	13.2	14.6	15.9	18.5	13.8
NW	2.8	5.9	2.6	.3	.2		11.8	12.5	16.4	13.9	8.2	8.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.5						2.5	.0	3.0	1.0	3.2	3.0
TOT OBS	148	393	180	36	7	724		13.4	166	200	158	200
TOT PCT	20.4	48.8	24.9	5.0	1.0		100.0		100.0	100.0	100.0	100.0

DECEMBER

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1873-1977

AREA 0030 SOUTH ISLAND (NW)
42.1S 167.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.0	3.0	35.5	41.6	13.3	3.6	.0	14.1	100.0	166
06&09	1.0	6.0	34.5	44.5	10.5	2.0	1.5	13.9	100.0	200
12&15	3.2	3.8	42.4	34.8	15.8	.0	.0	12.3	100.0	158
18&21	3.0	2.5	41.5	35.0	17.0	1.0	.0	13.2	100.0	200
TOT	18	28	278	283	102	12	3	13.4		724
PCT	2.5	3.9	38.4	39.1	14.1	1.7	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.7	1.6	4.0	7.9		6.7
NE	.6	1.5	3.7	5.6		6.5
E	.5	.9	2.5	2.6		6.2
SE	1.2	.4	.6	1.1		4.6
S	2.5	1.1	5.2	7.9		5.2
SW	6.7	4.6	7.4	3.2		4.4
W	3.5	3.0	5.7	4.5		5.2
NW	.8	1.1	4.1	4.5		6.4
VAR	.0	.0	.0	.0		.0
CALM	1.1	.3	1.7	1.1		5.0
TOT OBS	62	51	123	117	353	5.6
TOT PCT	17.6	14.4	34.8	33.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	1.3	.6	1.9	2.8	3.2	.6	.0	.2	.0	.0	3.5	
NE	.6	.3	.2	1.5	3.0	.9	.6	.4	.0	.0	4.0	
E	.0	.3	.5	.8	1.6	.2	.6	.0	.3	.0	2.2	
SE	.0	.0	.0	.4	.4	.3	.6	.0	.0	.0	1.6	
S	.0	.0	.2	1.8	2.5	1.3	.3	.0	.0	.0	5.2	
SW	.0	.0	.9	1.6	2.4	2.4	.3	.0	.0	.0	14.3	
W	.0	.0	.8	2.2	3.9	.2	.6	.3	.0	.0	8.7	
NW	.3	.3	.6	2.2	1.9	1.4	.0	.0	.0	.0	3.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.3	.3	.8	.3	.0	.3	.0	.0	2.3	
TOT OBS	8	5	19	48	70	27	10	4	1	0	161	353
TOT PCT	2.3	1.4	5.4	13.6	19.8	7.6	2.8	1.1	.3	.0	45.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >.50YD	= OR >0
= OR >6500	.0	.3	.3	.3	.3	.3	.3	.3
= OR >5000	1.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4
= OR >3500	3.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1
= OR >2000	7.5	10.5	11.6	11.6	11.6	11.6	11.6	11.6
= OR >1000	21.3	28.5	30.7	30.9	31.2	31.2	31.2	31.5
= OR >600	27.3	38.1	43.6	44.2	44.8	44.8	44.8	45.0
= OR >300	28.5	41.2	48.6	49.4	50.0	50.3	50.3	50.6
= OR >150	28.7	41.4	48.9	49.7	50.8	51.1	51.4	51.7
= OR > 0	28.7	41.4	49.4	50.8	52.5	53.0	53.6	53.9
TOTAL	104	150	179	184	190	192	194	195

TOTAL NUMBER OF OBS: 362

PCT FREQ NH <5/8: 46.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
5.7	11.6	11.6	9.4	6.7	5.7	8.9	11.4	27.8	1.0	406

DECEMBER

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1873-1977

AREA 0030 SOUTH ISLAND (NW)
42.1S 167.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.9	.1	.1	.0	.0	.0	.2	.2	.0	.0	1.5	
<1/2	NO PCP	.1	.0	.0	.2	.0	.2	.0	.4	.0	.0	.8	
	TOT %	1.0	.1	.1	.2	.0	.2	.2	.7	.0	.0	2.3	
	PCP	.0	.4	.3	.0	.0	.0	.0	.3	.0	.0	1.0	
1/2<1	NO PCP	.4	.2	.0	.0	.2	.1	.3	1.1	.0	.0	2.3	
	TOT %	.4	.5	.3	.0	.2	.1	.3	1.4	.0	.0	3.3	
	PCP	.4	.2	.0	.0	.0	.2	.0	.1	.0	.0	.8	
1<2	NO PCP	.2	.2	.0	.0	.0	.0	.2	.1	.0	.0	.7	
	TOT %	.5	.4	.0	.0	.0	.2	.2	.2	.0	.0	1.5	
	PCP	1.4	.7	.3	.0	.1	.3	.6	.5	.0	.0	4.0	
2<5	NO PCP	.5	.5	.0	.0	.3	.3	.5	.7	.0	.0	3.0	
	TOT %	2.0	1.2	.3	.0	.5	.6	1.1	1.2	.0	.0	6.9	
	PCP	2.3	1.9	.5	.5	1.4	1.9	.7	.2	.0	.2	9.8	
5<10	NO PCP	2.8	1.3	1.5	1.3	2.8	5.8	3.8	4.1	.0	.0	23.5	
	TOT %	5.1	3.2	2.0	1.8	4.2	7.8	4.5	4.3	.0	.2	33.2	
	PCP	.1	.8	.0	.0	.0	.4	.5	.5	.0	.0	2.3	
10+	NO PCP	6.4	4.7	3.1	1.4	6.6	13.6	8.2	3.8	.0	2.6	50.4	
	TOT %	6.5	5.5	3.1	1.4	6.6	14.0	8.7	4.3	.0	2.6	52.7	
	TOT OBS												605
	TOT PCT	15.6	11.0	5.8	3.3	11.5	22.8	15.0	12.1	.0	2.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.3	.1	.1	.2	.0	.2	.0	.5	.0		1.3	
	11-21	.3	.0	.0	.0	.0	.0	.2	.2	.0		.7	
	22+	.3	.0	.0	.0	.0	.0	.0	.0	.0		.3	
	TOT %	1.0	.1	.1	.2	.0	.2	.2	.7	.0	.0	2.3	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.2	.2	.1	.0	.2	.1	.2	.4	.0		1.5	
	11-21	.2	.0	.2	.0	.0	.0	.2	1.0	.0		1.5	
	22+	.0	.3	.0	.0	.0	.0	.0	.0	.0		.3	
	TOT %	.4	.5	.3	.0	.2	.1	.3	1.4	.0	.0	3.3	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.1	.2	.1	.2	.0	.0	.2	.1	.0		.8	
	11-21	.2	.2	.0	.0	.0	.0	.0	.0	.0		.3	
	22+	.3	*	.0	.0	.0	.2	.1	.1	.0		.7	
	TOT %	.5	.5	.1	.2	.0	.2	.2	.2	.0	.0	1.8	
	0-3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
2<5	4-10	.3	.3	.2	.0	.2	.4	.3	.5	.0		2.1	
	11-21	.9	.2	.1	.0	.1	.2	.5	.5	.0		2.5	
	22+	.9	.7	.2	.0	.2	.0	.2	.3	.0		2.5	
	TOT %	2.1	1.3	.4	.0	.5	.6	1.1	1.3	.0	.0	7.2	
	0-3	.2	.0	.3	.0	.0	.5	.2	.0	.0	.2	1.3	
5<10	4-10	1.5	.6	.9	.7	.5	1.9	1.7	2.5	.0		10.2	
	11-21	2.5	1.5	.5	.7	2.5	3.2	1.7	1.5	.0		14.1	
	22+	1.0	1.1	.4	.4	1.2	2.1	.9	.3	.0		7.4	
	TOT %	5.1	3.2	2.0	1.8	4.2	7.7	4.5	4.3	.0	.2	33.0	
	0-3	.5	.9	.0	.5	.2	.2	.2	.2	.0	2.6	5.3	
10+	4-10	4.1	2.4	1.6	.5	3.2	5.8	4.1	2.3	.0		24.0	
	11-21	1.6	1.8	1.1	.4	2.3	5.8	3.9	1.6	.0		18.6	
	22+	.3	.4	.3	*	.8	2.0	.5	.3	.0		4.6	
	TOT %	6.5	5.5	3.1	1.4	6.5	13.9	8.6	4.3	.0	2.6	52.4	
	TOT OBS												609
	TOT PCT	15.6	11.0	6.0	3.5	11.4	22.7	14.9	12.2	.0	2.8	100.0	

DECEMBER

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1873-1977

AREA 0030 SOUTH ISLAND (NW)
42.1S 167.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.9	.0	1.9	12.0	16.7	7.4	1.9	.9	.0	.0	42.6	57.4	108
06&09	2.0	1.0	8.2	13.3	20.4	5.1	3.1	1.0	1.0	.0	55.1	44.9	98
12&15	5.2	1.3	5.2	9.1	13.0	9.1	3.9	.0	.0	.0	46.8	53.2	77
18&21	.0	3.1	6.3	16.7	25.0	7.3	2.1	2.1	.0	.0	62.5	37.5	96
TOT	8	5	20	49	72	27	10	4	1	0	196	183	379
PCT	2.1	1.3	5.3	12.9	19.0	7.1	2.6	1.1	.3	.0	51.7	48.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	3.4	.7	6.9	26.2	62.8	145
06&09	2.3	4.0	2.3	9.7	36.0	45.7	175
12&15	2.9	2.9	2.2	6.6	26.5	58.8	136
18&21	3.5	2.4	1.8	5.9	38.8	47.6	170
TOT	14	20	11	46	203	332	626
PCT	2.2	3.2	1.8	7.3	32.4	53.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <5OYD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.9	4.9	20.4	25.2	54.4	103
06&09	2.1	11.7	30.9	27.7	41.5	94
12&15	5.6	12.5	23.6	26.4	50.0	72
18&21	1.1	10.8	30.1	34.4	35.5	93
TOT	9	35	93	103	184	362
PCT	2.5	9.7	26.2	28.5	45.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.0	.0	.2	.0	1	.2
65/69	.0	.0	.0	.0	.7	1.7	.7	4.6	32	7.7
60/64	.0	.0	.0	.5	3.6	7.9	11.8	11.8	148	35.5
55/59	.0	.0	.0	.2	2.9	9.1	13.4	19.2	187	44.8
50/54	.0	.0	.0	.5	1.0	1.7	2.4	5.8	47	11.3
45/49	.0	.0	.0	.0	.0	.0	.0	.5	2	.5
TOTAL	0	0	0	5	34	85	119	174	417	100.0
PCT	.0	.0	.0	1.2	8.2	20.4	28.5	41.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
1.6	1.7	.2	.2	.2	.6	1.0	1.8	.0	.2
6.4	4.8	2.2	1.0	3.1	7.3	5.3	3.9	.0	1.4
4.4	3.5	4.6	.8	4.7	11.2	11.0	3.5	.0	1.2
.5	.5	.2	.1	2.3	4.0	2.6	.8	.0	.2
.0	.0	.0	.2	.0	.1	.2	.0	.0	.0
12.9	10.8	7.3	2.3	10.3	23.1	20.2	10.0	.0	3.1

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	72	71	68	61	53	50	45	60.5	168
06&09	72	69	68	59	52	50	50	59.8	194
12&15	70	68	64	58	52	49	49	58.1	152
18&21	70	66	64	58	51	47	47	58.2	193
TOT	72	70	66	59	52	49	45	59.1	707

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	2.9	11.5	29.8	23.1	32.7	82	104
06&09	.0	.9	10.3	21.4	28.2	39.3	85	117
12&15	.0	1.0	7.8	11.7	31.1	48.5	87	103
18&21	.0	.0	3.8	18.3	30.8	47.1	88	104
TOT	0	5	36	87	121	179	85	428

DECEMBER

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1873-1977

AREA 0030 SOUTH ISLAND (NW)
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA THP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
9/10	.0	.0	.0	.4	.0	.4	.0	4	.0	.8
7/8	.0	.0	.2	.2	1.4	.4	.8	15	.0	3.0
6	.0	.0	.0	.0	.6	.4	.4	7	.2	1.2
5	.0	.0	.2	1.0	2.2	.4	.0	19	.4	3.4
4	.0	.0	.0	1.2	3.0	2.0	.0	31	.6	5.6
3	.0	.0	.8	1.6	1.6	1.0	.0	25	.2	4.8
2	.0	.0	.4	3.8	4.4	1.0	.0	48	.6	9.0
1	.0	.2	1.6	7.4	4.8	1.8	.0	79	1.6	14.1
0	.0	.2	4.2	8.4	4.8	.4	.4	92	.6	17.7
-1	.2	1.2	2.0	4.4	1.6	.0	.0	47	.6	8.8
-2	.0	1.6	2.8	4.4	1.4	.0	.0	51	.4	9.8
-3	.0	1.6	3.0	1.6	1.2	.0	.2	38	.0	7.6
-4	.0	1.2	2.2	1.8	.2	.0	.0	27	.0	5.4
-5	.0	.0	.4	.4	.6	.0	.0	7	.0	1.4
-6	.2	.2	.4	.4	.0	.0	.0	6	.0	1.2
-7/-8	.2	.2	.2	.2	.2	.0	.0	5	.0	1.0
TOTAL	3	32	92	186	141	39	9	502	26	476
PCT	.6	6.4	18.3	37.1	28.1	7.8	1.8	100.0	5.2	94.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.3	.0	.0	.0	.0	.9
1-2	.0	3.2	.4	.0	.0	.0	3.5
3-4	.0	2.0	3.1	.0	.0	.0	5.1
5-6	.0	.0	1.7	.4	.0	.0	2.1
7	.0	.4	.5	.6	.0	.0	1.5
8-9	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.0	1.0	.3	.0	1.3
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.6	.0	.0	.6
17-19	.0	.0	.0	.0	.4	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.8	5.7	3.2	.6	.0	16.0

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.2	.1	.0	.0	.0	.0	1.3
1-2	.4	1.5	.1	.0	.0	.0	2.0
3-4	.0	.5	.8	.4	.0	.0	1.6
5-6	.0	.4	2.6	.8	.0	.0	3.8
7	.0	.4	.8	1.5	.0	.0	2.7
8-9	.0	.0	.1	.1	.0	.0	.2
10-11	.0	.0	.0	.5	.1	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.4	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	2.8	4.4	3.3	.5	.0	12.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	2.0	1.0	.0	.0	.0	3.0
3-4	.0	.7	.7	.4	.0	.0	1.8
5-6	.0	.0	.6	.3	.0	.0	.9
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.4	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	2.6	.6	.4	.0	7.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.5	.0	.0	.0	.0	.8
1-2	.0	.5	.1	.0	.0	.0	.5
3-4	.0	.4	.4	.0	.0	.0	.7
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.4	.0	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	1.3	.8	.0	.0	.0	2.4

PERIOD: (OVER-ALL) 1963-1977 DECEMBER AREA 0030 SOUTH ISLAND (NW)
42.1S 167.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.0	.0	.0	.0	.0	1.3
1-2	.0	1.6	.3	.0	.0	.0	1.9
3-4	.3	1.0	1.0	1.1	.0	.0	3.3
5-6	.0	.0	.0	.6	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.4	.0	.0	.0	.6
10-11	.0	.4	.0	.4	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.0	1.9	2.1	.0	.0	8.5

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.9	.0	.0	.0	.0	2.3
1-2	.4	4.5	2.2	.0	.0	.0	7.0
3-4	.1	2.8	.9	.4	.0	.0	4.2
5-6	.0	.4	2.4	.9	.0	.0	3.7
7	.0	.1	1.4	.4	.0	.0	1.9
8-9	.0	.0	.5	.4	.0	.4	1.3
10-11	.0	.4	.0	.5	.0	.0	.8
12	.0	.0	.4	.0	.0	.0	.4
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.4	.0	.0	.0	.4
23-25	.0	.0	.0	.0	.4	.0	.4
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	10.0	8.2	2.6	.4	.4	22.5

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.4	.0	.0	.0	.6
1-2	.0	5.1	.4	.0	.0	.0	5.5
3-4	.0	.9	4.4	.0	.0	.0	5.3
5-6	.0	.7	1.2	1.0	.0	.0	2.9
7	.0	.3	1.8	.0	.0	.0	2.1
8-9	.0	.0	.3	.7	.0	.0	1.0
10-11	.0	.4	.0	.6	.0	.0	1.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.5	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.7	8.4	2.9	.0	.0	19.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.4	.0	.0	.0	.0	.4	
1-2	.4	2.2	1.1	.0	.0	.0	3.6	
3-4	.0	1.5	2.8	.4	.0	.0	4.7	
5-6	.0	.0	.1	.0	.0	.0	.1	
7	.0	.0	.5	.0	.0	.0	.5	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	4.1	4.4	.4	.0	.0	9.2	97.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.8	5.4	.4	.0	.0	.0	11.5	
1-2	1.1	20.9	5.4	.0	.0	.0	27.0	
3-4	.4	9.7	14.0	2.5	.0	.0	26.6	
5-6	.0	1.4	8.6	4.0	.0	.0	14.0	
7	.0	1.1	5.0	2.5	.0	.0	8.6	
8-9	.0	.0	1.8	1.4	.0	.4	3.6	
10-11	.0	1.1	.4	2.9	.7	.0	5.0	
12	.0	.0	.4	.4	.0	.0	.7	
13-16	.0	.0	.0	1.4	.4	.0	1.8	
17-19	.0	.0	.0	.0	.4	.0	.4	
20-22	.0	.0	.4	.0	.0	.0	.4	
23-25	.0	.0	.0	.0	.4	.0	.4	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								278
TOT PCT	7.2	39.2	36.3	15.1	1.8	.4	100.0	

PERIOD: (OVER-ALL) 1950-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.3	4.1	7.5	3.1	3.1	1.3	.9	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	69	4
6-7	.0	.3	3.1	6.0	9.7	5.7	4.1	1.6	2.5	.6	.6	.3	.0	.0	.0	.0	.0	.0	.0	115	8
8-9	.0	.9	.9	5.3	6.0	1.6	4.4	.9	3.1	.9	.6	.0	.0	.0	.0	.0	.0	.0	.0	79	8
10-11	.0	.3	.0	.0	.9	.9	2.2	.6	.3	.6	.0	.3	.0	.0	.0	.3	.3	.0	.0	22	15
12-13	.0	.0	.0	.3	.0	.9	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	9
>13	.0	.0	.0	.6	.6	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3	.0	.0	7	17
INDET	.9	.3	.6	2.8	1.3	.0	.9	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	6
TOTAL	7	19	39	58	69	33	43	12	21	7	5	2	0	0	0	1	2	0	0	318	8
PCT	2.2	6.0	12.3	18.2	21.7	10.4	13.5	3.8	6.6	2.2	1.6	.6	.0	.0	.0	.3	.6	.0	.0	100.0	

ANNUAL

PERIOD: (PRIMARY) 1912-1976
(OVER-ALL) 1858-1978

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	14.8	3.0	5.1	.0	.0	.0	.0	22.5	6.9	.9	5.4	.0	1.1	.1		64.1
NE	14.9	2.9	5.5	.0	.0	.0	.1	22.6	5.1	.3	2.9	.3	1.1	.4		67.4
E	10.8	1.1	5.6	.0	.0	.0	.0	17.1	3.9	.7	2.1	.2	.6	.0		75.5
SE	7.6	1.0	3.8	.0	.0	.0	.0	12.7	3.9	2.0	2.6	.0	.7	.0		79.4
S	2.3	3.9	2.2	.0	.0	.0	.3	8.7	2.0	.1	1.7	.1	.6	.1		86.8
SW	2.8	4.2	1.7	.0	.0	.0	.2	8.6	4.4	.3	1.6	.2	1.2	*		84.0
W	4.0	5.4	2.2	.0	.0	.0	.2	11.7	5.9	.9	2.8	.1	.9	.2		77.7
NW	8.5	5.7	5.8	.0	.0	.0	.0	19.8	4.8	1.0	3.7	.2	1.3	.0		69.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	4.1	1.5	2.6	.0	.0	.0	.0	8.0	1.0	.0	1.6	.0	3.6	.0		85.8
TOT PCT	7.2	3.7	3.6	.0	.0	.0	.1	14.2	4.4	.6	2.7	.1	1.1	.1		77.0
TOT OBS:	7168															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	5.4	2.9	2.7	.0	.0	.0	.2	11.8	5.1	.1	2.1	.1	1.4	.2		79.2
06609	6.6	4.0	2.9	.0	.0	.0	.1	13.4	3.4	.5	3.1	.1	1.3	.0		78.3
12615	8.4	3.3	4.2	.0	.0	.0	.1	15.4	4.3	1.4	2.2	.1	.3	.2		76.6
18621	7.8	4.1	4.9	.0	.0	.0	*	16.4	4.7	.6	3.2	.2	1.0	.0		74.2
TOT PCT	7.2	3.6	3.7	.0	.0	.0	.1	14.3	4.3	.6	2.7	.1	1.0	.1		77.1
TOT OBS:	7402															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	4.2	3.9	2.0	.6	.2		11.6	15.2	12.0	19.4	12.3	11.5	11.9	11.6	9.9	11.2
NE	.5	4.0	3.9	1.5	.5	.2		10.1	14.8	11.1	7.1	9.7	8.9	9.9	13.3	10.0	10.4
E	.8	3.8	2.9	1.1	.3	.1		9.0	12.9	9.4	8.6	6.2	8.8	9.3	9.3	11.2	10.3
SE	.5	2.5	1.8	.6	.1	*		5.5	11.6	4.7	1.4	3.7	6.0	6.1	6.6	7.0	8.0
S	.8	4.9	4.7	1.5	.4	*		12.3	13.6	11.9	13.9	12.0	14.7	12.4	18.6	11.8	11.0
SW	1.1	6.9	9.8	4.3	.9	.1		23.2	15.8	22.8	21.1	27.1	20.9	21.7	17.0	22.4	22.7
W	.9	4.6	6.0	2.8	.4	.1		14.9	15.2	14.9	16.3	15.6	16.0	14.9	11.9	14.3	13.5
NW	.4	3.4	3.9	1.5	.3	*		9.6	14.5	9.8	11.0	9.8	10.6	8.9	7.8	9.2	10.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.8							3.8	.0	3.4	1.2	3.5	2.7	4.9	4.0	4.2	2.2
TOT OBS							8452		14.1	1958	75	1843	461	1650	99	1740	425
TOT PCT	9.6	34.2	36.6	15.9	3.6	.7		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.4	4.8	2.9	1.2	.3		11.6	15.2	12.3	12.1	12.0	10.1
NE	2.1	4.6	2.2	.8	.4		10.1	14.8	11.0	9.5	10.1	10.1
E	2.5	4.0	1.7	.6	.2		9.0	12.9	9.5	6.8	9.3	11.0
SE	1.7	2.4	1.1	.2	*		5.5	11.6	4.5	4.3	6.1	7.2
S	2.6	5.7	3.1	.6	.1		12.3	13.6	11.9	12.7	12.7	11.7
SW	3.5	9.9	7.2	2.2	.4		23.2	15.8	22.7	25.6	21.4	22.5
W	2.5	6.4	4.7	1.2	.2		14.9	15.2	14.9	15.8	14.7	14.1
NW	1.8	4.3	2.7	.7	.1		9.6	14.5	9.8	10.0	8.9	9.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.8						3.8	.0	3.3	3.3	4.8	3.8
TOT OBS						8452		14.1	2033	2304	1749	2166
TOT PCT	22.9	42.1	25.5	7.8	1.8		100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1912-1976
(OVER-ALL) 1858-1976

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.0E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.3	6.5	33.0	35.6	16.8	3.8	1.1	14.7	100.0	2033
06&09	3.3	5.7	31.5	39.2	15.7	3.9	.6	14.5	100.0	2504
12&15	4.8	5.7	36.8	34.8	13.6	3.8	.5	13.4	100.0	1749
18&21	3.8	5.3	36.8	35.9	14.6	3.0	.6	13.7	100.0	2166
TOT								14.1		8452
PCT	3.8	5.8	34.2	36.6	15.3	3.6	.7		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.4	.9	3.2	6.7		6.4
NE	1.5	1.0	3.1	4.8		5.9
E	2.6	1.3	2.6	2.9		4.9
SE	1.8	.7	1.6	1.3		4.4
S	3.4	2.0	4.6	2.9		4.6
SW	6.2	5.4	7.9	3.6		4.5
W	2.6	3.0	6.1	3.0		5.1
NW	1.3	1.1	3.3	3.3		5.8
VAR	.0	.0	.0	.0		.0
CALM	2.0	.7	1.1	.6		3.5
TOT OBS					4555	5.1
TOT PCT	22.8	16.1	33.4	27.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.6	.2	.9	2.4	2.8	1.0	.3	.2	*	.0	3.4	
NE	.6	.1	.5	1.5	2.1	1.1	.4	.2	.1	*	3.8	
E	.2	.1	.3	1.0	1.4	.9	.4	.1	.1	.0	4.9	
SE	.2	*	.1	.5	.9	.4	.2	*	*	.0	3.0	
S	.1	.0	.3	1.2	2.5	1.0	.4	*	.1	*	6.7	
SW	.2	.1	.4	1.9	3.5	2.2	.6	.1	.1	*	13.9	
W	.2	.0	.4	1.5	3.0	1.2	.4	.1	.0	.1	7.7	
NW	.2	.1	.3	1.5	1.9	1.0	.2	*	.0	*	3.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	*	*	*	.2	.5	.2	.2	.1	*	.0	3.1	
TOT OBS												4555
TOT PCT	2.2	.6	3.2	11.7	18.5	9.1	3.0	.8	.4	.2	59.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.5	.6	.6	.6	.6	.6	.6	.6
= OR >5000	1.2	1.4	1.5	1.5	1.5	1.5	1.5	1.5
= OR >3500	3.8	4.4	4.5	4.5	4.5	4.5	4.5	4.5
= OR >2000	11.1	13.0	13.5	13.5	13.5	13.5	13.5	13.5
= OR >1000	23.6	29.7	31.5	31.8	31.8	31.8	31.8	31.9
= OR >600	28.6	38.9	42.6	43.2	43.4	43.6	43.6	43.6
= OR >300	29.5	41.0	45.5	46.3	46.6	46.8	46.8	46.9
= OR >150	29.7	41.3	45.9	46.7	47.1	47.3	47.4	47.4
= OR > 0	29.9	42.1	47.3	48.4	49.0	49.3	49.6	49.6

TOTAL NUMBER OF OBS: 4678

PCT FREQ NH <5/8: 50.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.8	12.2	10.8	10.0	7.5	6.1	8.4	10.7	23.9	1.6	5276

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PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1858-1978

AREA 0030 SOUTH ISLAND (NZ)
41.8S 169.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	*	.1	.0	.0	*	*	.1	.0	*	.3	
	NO PCP	.1	.1	*	*	.0	*	*	.1	.0	.1	.4	
	TOT %	.3	.1	.1	*	.0	*	.1	.2	.0	.1	.8	
1/2<1	PCP	.2	.2	.1	.0	*	*	.1	.1	.0	*	.8	
	NO PCP	.3	.1	.1	.1	.1	.1	.1	.2	.0	.0	1.0	
	TOT %	.5	.4	.1	.1	.1	.1	.2	.3	.0	*	1.8	
1<2	PCP	.3	.3	.1	.0	*	*	*	.1	.0	.0	.8	
	NO PCP	.1	.1	*	.0	*	.1	.1	.1	.0	*	.5	
	TOT %	.4	.4	.1	.0	.1	.1	.1	.2	.0	*	1.3	
2<5	PCP	.7	.6	.3	.1	.1	.3	.2	.4	.0	*	2.8	
	NO PCP	.4	.4	.1	.1	.2	.3	.2	.3	.0	*	2.0	
	TOT %	1.1	.9	.5	.2	.3	.6	.5	.7	.0	.1	4.8	
5<10	PCP	1.1	1.1	.8	.4	.7	1.2	.9	.9	.0	.1	7.3	
	NO PCP	2.8	2.1	1.4	.9	2.4	5.5	3.5	2.5	.0	.5	21.5	
	TOT %	3.9	3.2	2.2	1.3	3.2	6.7	4.4	3.4	.0	.6	28.8	
10+	PCP	.3	.3	.2	.1	.2	.5	.3	.2	.0	.1	2.2	
	NO PCP	5.3	5.1	5.7	3.6	8.2	15.6	8.9	4.4	.0	3.2	60.3	
	TOT %	5.6	5.4	5.9	3.7	8.4	16.1	9.2	4.9	.0	3.3	62.4	
	TOT OBS												7166
	TOT PCT	11.7	10.3	8.8	5.3	12.1	23.6	14.5	9.6	.0	4.1	100.0	

TABLE 9

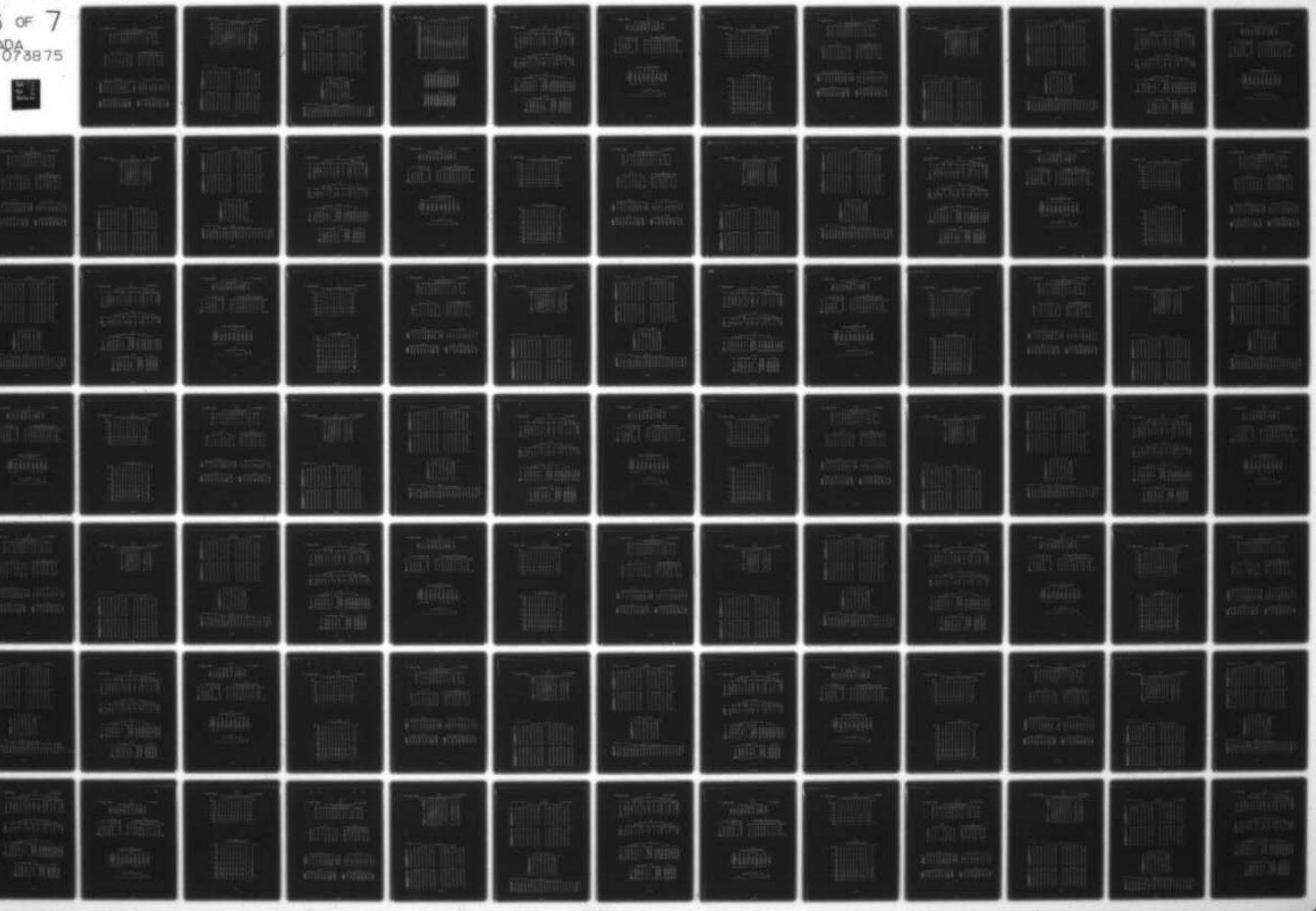
PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

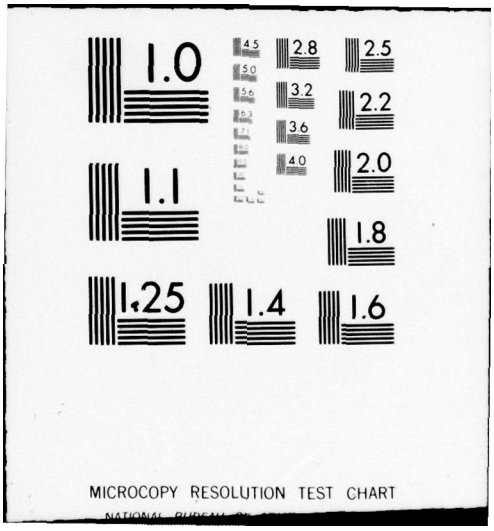
VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.1	*	*	*	.0	*	*	.1	.0		.3	
	11-21	.1	*	*	*	.0	*	*	*	.0		.2	
	22+	.1	*	*	.0	.0	*	*	*	.0		.2	
	TOT %	.3	.1	.1	*	.0	*	.1	.2	.0	.1	.8	
1/2<1	0-3	.0	.0	*	*	*	.0	.0	.0	.0	*	.1	
	4-10	.1	.1	*	*	.1	.1	.1	*	.0		.6	
	11-21	.2	.2	*	.0	*	*	.1	.2	.0		.7	
	22+	.2	.1	*	*	*	*	*	.1	.0		.5	
	TOT %	.5	.4	.1	.1	.1	.1	.2	.3	.0	*	1.9	
1<2	0-3	*	.0	.0	.0	*	*	*	.0	.0	*	.1	
	4-10	*	*	*	*	*	*	*	*	.0		.2	
	11-21	.1	.1	*	.0	*	*	*	.1	.0		.4	
	22+	.2	.2	.1	.0	*	*	*	.1	.0		.7	
	TOT %	.4	.4	.1	*	.1	.1	.1	.2	.0	*	1.4	
2<5	0-3	*	*	*	.0	.0	.0	*	*	.0	.1	.2	
	4-10	.2	.2	.1	.1	.1	.2	.1	.2	.0		1.2	
	11-21	.4	.3	.1	.1	.1	.2	.1	.2	.0		1.5	
	22+	.6	.4	.2	*	.1	.2	.2	.3	.0		2.1	
	TOT %	1.1	.9	.5	.2	.3	.6	.5	.7	.0	.1	4.9	
5<10	0-3	.2	.2	.2	.1	.1	.2	.2	.1	.0	.6	1.8	
	4-10	1.1	.9	.7	.4	1.1	1.4	1.2	1.2	.0		8.1	
	11-21	1.5	1.3	.7	.6	1.3	2.7	1.6	1.3	.0		11.1	
	22+	1.0	.8	.6	.2	.6	2.3	1.4	.8	.0		7.8	
	TOT %	3.9	3.1	2.2	1.3	3.2	6.7	4.4	3.4	.0	.6	28.7	
10+	0-3	.5	.4	.6	.3	.7	.9	.7	.3	.0	3.3	7.8	
	4-10	2.6	2.8	2.8	1.9	3.6	5.4	3.1	2.0	.0		24.2	
	11-21	1.8	1.8	1.9	1.1	3.0	6.8	3.8	2.1	.0		22.2	
	22+	.6	.5	.7	.4	1.1	2.9	1.6	.5	.0		8.2	
	TOT %	5.6	5.4	5.9	3.7	8.4	16.0	9.2	4.9	.0	3.3	62.4	
	TOT OBS												7201
	TOT PCT	11.7	10.3	8.8	5.3	12.1	23.6	14.5	9.6	.0	4.1	100.0	

AD-A073 875 NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO), SELECTE--ETC(U)
SEP 79

UNCLASSIFIED NL

6 OF 7
ADA 073875




1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
6.3
7.1
8.0
9.0
MICROCOPY RESOLUTION TEST CHART

ANNUAL

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1858-1978

AREA 0030 SOUTH ISLAND (NZ)
41.8S 169.0E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.9	.4	3.1	10.8	19.8	9.1	3.2	.7	.4	.1	48.6	51.4	1428
06&09	1.5	.6	3.2	11.7	18.8	7.9	3.3	1.1	.4	.3	48.9	51.1	1429
12&15	3.4	.5	2.1	9.5	12.8	7.9	2.1	.4	.1	.2	39.0	61.0	920
18&21	3.5	.9	3.4	12.5	16.4	9.4	2.3	1.0	.4	.1	49.9	50.1	1151
TOT													4928
PCT	2.1	.6	3.0	11.2	17.5	8.6	2.8	.8	.4	.2	47.3	52.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.5	1.7	.9	5.0	23.6	68.3	1781
06&09	.6	2.0	1.4	5.0	32.1	58.8	2161
12&15	1.0	1.7	2.0	4.7	25.6	65.0	1568
18&21	1.0	1.6	1.2	5.0	31.6	59.4	1909
TOT							7439
PCT	.8	1.8	1.4	4.9	28.6	62.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NM >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.8	5.2	18.5	31.8	49.7	1384
06&09	1.6	5.9	20.7	31.0	48.3	1356
12&15	3.7	6.9	19.1	23.8	57.1	848
18&21	3.8	9.0	23.3	29.6	47.2	1090
TOT						4678
PCT	2.2	6.6	20.3	29.7	50.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.0	*	.0	.0		*
75/79	.0	.0	.0	.0	.0	*	.0	.0		*
70/74	*	.0	.0	*	.2	.3	.3	.1		1.0
65/69	*	.0	*	.1	.5	1.2	2.0	3.0		7.0
60/64	.0	*	*	.2	2.1	5.3	6.7	8.5		22.9
55/59	.0	*	.3	.6	3.8	9.1	11.7	11.4		36.9
50/54	.0	*	.3	.7	3.6	5.8	8.9	7.2		26.1
45/49	.0	.0	*	.2	.6	1.5	1.8	1.7		5.8
40/44	.0	.0	.0	.0	*	.1	.1	.1		.4
TOTAL									5491	100.0
PCT	*	.1	.6	1.8	10.9	23.4	31.0	32.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	*	*	.0	.0	.0
.0	.0	.0	.0	.0	.0	*	.0	.0	.0
.2	.1	*	*	.1	.1	.1	.2	.0	.1
1.1	1.0	.6	.3	.7	1.2	.7	.8	.0	.6
2.9	2.5	1.9	1.0	2.4	5.0	3.8	2.1	.0	1.3
5.4	3.6	3.3	1.5	3.4	8.0	6.4	4.1	.0	1.1
1.9	2.7	2.5	1.7	3.8	7.1	3.9	1.7	.0	.8
.1	.2	.8	.6	1.4	1.4	.9	.2	.0	.1
.0	.0	*	*	.1	.1	.1	*	.0	.0
11.5	10.2	9.1	5.2	12.0	23.0	15.9	9.1	.0	4.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	86	67	65	58	52	47	39	58.4	2002
06&09	82	66	63	58	51	48	38	57.5	2476
12&15	84	64	62	57	50	47	32	56.8	1732
18&21	72	63	62	57	50	47	34	56.5	2141
TOT	86	66	63	57	51	48	32	57.3	8351

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.1	4.0	15.0	25.4	29.8	25.7	81	1434
06&09	.1	2.5	10.9	25.4	31.9	29.3	82	1635
12&15	.0	1.6	8.8	20.4	31.0	38.4	85	1187
18&21	.0	2.1	8.3	22.4	31.0	36.3	85	1398
TOT	3	145	606	1327	1753	1820	83	5654

ANNUAL

PERIOD: (PRIMARY) 1912-1976
(OVER-ALL) 1858-1976

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.0E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	*	2	.0	*
14/16	.0	.0	.0	.0	.0	.0	.3	.1	*	.0	.0	.0	25	.0	.4
11/13	.0	.0	.0	.0	*	.1	.1	.2	*	.0	.0	*	32	.0	.5
9/10	.0	.0	.0	.0	.1	.1	.2	.4	.1	.1	*	.0	53	*	.9
7/8	.0	.0	.0	*	.2	.3	.6	.4	.3	.1	*	.0	113	.0	1.9
6	.0	.0	.0	*	.1	.2	.4	.2	.2	.0	.0	.0	68	.1	1.1
5	.0	.0	.0	.1	.4	.8	1.1	.3	.1	*	.0	.0	168	.1	2.7
4	.0	.0	.0	.2	.2	1.1	1.1	.6	.1	*	.0	.0	202	.2	3.2
3	.0	.0	.0	*	.7	1.6	1.0	.4	.1	.0	.0	.0	225	.1	3.5
2	.0	.0	*	.3	1.5	2.8	1.8	.7	.2	.0	.0	.0	436	.3	6.9
1	.0	.0	*	.4	2.5	3.5	2.3	1.1	.2	.0	.0	.0	606	.6	9.4
0	.0	.0	.1	1.1	4.7	4.5	3.3	.8	.1	*	.0	.0	875	.4	14.1
-1	.0	.0	*	1.1	4.7	3.4	2.3	.5	.1	.0	.0	.0	724	.4	11.8
-2	.0	.0	.2	1.9	5.2	2.9	2.0	.4	.1	.0	.0	.0	742	.3	12.3
-3	.0	.0	.2	1.6	3.3	1.8	1.1	.3	*	.0	.0	.0	500	.2	8.2
-4	.0	.0	.6	2.1	2.7	1.2	.6	.1	*	.0	.0	.0	426	.1	7.3
-5	.0	*	.5	1.9	2.4	.9	.4	.1	.0	.0	.0	.0	358	.1	6.1
-6	.0	*	.4	1.0	.8	.3	.1	*	.0	.0	.0	.0	156	*	2.7
-7/-8	.0	.0	.7	1.0	.5	.3	.1	*	.0	.0	.0	.0	151	.0	2.7
-9/-10	*	.1	.2	.6	.1	.1	.0	.0	.0	.0	.0	.0	62	.0	1.1
-11/-13	.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	17	.0	.3
-14/-16	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL													5942		
PCT	*	.2	3.3	13.4	30.0	25.7	18.8	6.7	1.7	.2	*	*	100.0	2.8	97.2

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.6	*	.0	.0	.0	1.0
1-2	.2	1.9	.5	.0	.0	.0	2.6
3-4	*	1.0	1.7	.1	.0	.0	2.9
5-6	.0	.3	1.1	.3	.1	.0	1.9
7	.0	.1	.7	.5	.1	.0	1.4
8-9	*	.0	.2	.4	.2	.0	.7
10-11	*	.0	*	.3	.2	*	.5
12	.0	*	*	.1	*	.0	.2
13-16	.0	.0	*	.2	.1	.1	.4
17-19	.0	*	.0	*	.1	*	.2
20-22	.0	.0	*	.0	.0	.0	*
23-25	.0	.0	.0	.0	.0	*	*
26-32	.0	.0	.0	.0	*	*	*
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.8	4.3	1.9	.9	.2	11.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.0	.1	.0	.0	.0	1.6
1-2	.2	1.4	.5	.0	.0	.0	2.5
3-4	.1	1.2	1.2	.2	.0	.0	2.6
5-6	.0	.3	1.3	.4	*	.0	2.0
7	.0	.1	.7	.4	.0	.0	1.1
8-9	.0	*	.1	.2	.2	.0	.5
10-11	*	.0	.1	.2	*	.0	.3
12	.0	*	.0	.1	*	.0	.1
13-16	.0	.0	*	.1	.1	.1	.3
17-19	.0	*	.0	*	.1	*	.2
20-22	.0	.0	.0	*	.1	*	.1
23-25	.0	.0	.0	.0	.0	*	*
26-32	.0	.0	.0	.0	.0	*	*
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.4	4.0	1.5	.5	.2	11.3

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	1.2	.1	.0	.0	.0	1.9
1-2	.1	1.9	.4	.0	.0	.0	2.5
3-4	*	.7	1.1	.3	.0	.0	2.1
5-6	*	.1	.9	.2	*	.0	1.3
7	.0	.0	.4	.3	*	*	.7
8-9	*	.1	.1	.2	.1	.0	.5
10-11	.0	*	*	.1	*	.0	.2
12	.0	*	.0	.1	.0	.0	.1
13-16	.0	*	.0	*	.1	.0	.1
17-19	.0	.0	.0	.0	.1	*	.1
20-22	.0	.0	.0	.0	.0	*	*
23-25	.0	.0	.0	.0	*	*	*
26-32	.0	.0	.0	.0	*	.0	*
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	4.1	3.1	1.1	.4	.1	9.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.8	.0	.0	.0	.0	.9
1-2	.1	1.1	.4	.0	.0	.0	1.6
3-4	*	.3	.8	.1	.0	.0	1.3
5-6	*	.1	.4	.1	.0	.0	.6
7	.0	*	.2	.1	*	.0	.3
8-9	*	*	*	.1	.0	.0	.2
10-11	.0	.0	.1	.1	*	.0	.1
12	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	.0	*	*	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	*	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.3	1.8	.6	.1	.0	5.1

PERIOD: (OVER-ALL) 1963-1978 ANNUAL AREA 0030 SOUTH ISLAND (NW)
41.8S 169.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.8	*	.0	.0	.0	1.3	1.1	1.0	*	.0	.0	.0	2.2
1-2	.2	2.3	.5	.0	.0	.0	3.1	.3	3.8	1.2	.0	.0	.0	5.2
3-4	*	1.0	1.6	.1	.0	.0	2.7	*	1.9	3.1	.5	.0	.0	5.5
5-6	.0	.2	1.0	.5	.1	.0	1.8	.0	.4	2.6	.7	.1	.0	3.8
7	.0	.1	.4	.4	*	.0	1.0	.0	.2	1.2	1.1	.1	.0	2.5
8-9	.0	.1	.1	.2	.1	.0	.5	.0	*	.6	.5	.2	*	1.4
10-11	.0	*	.1	.2	*	.0	.4	.0	*	.3	.5	.1	*	.9
12	*	.0	.0	.1	*	.0	.1	.0	*	.2	.2	.1	.0	.5
13-16	.0	.0	.0	.1	*	.0	.2	.0	*	*	.3	*	*	.4
17-19	.0	.0	*	.0	.0	.0	*	.0	.0	.0	*	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	*	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.1
26-32	.0	.0	.0	.0	*	.0	*	.0	.0	.0	.0	*	*	.1
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.5	3.9	1.6	.3	.0	11.1	1.5	7.3	9.3	3.8	.7	.1	22.8

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	1.0	.8	.1	.0	.0	.0	1.9	.3	.4	*	.0	.0	.0	.7	
1-2	.2	2.2	.8	.0	.0	.0	3.1	.1	1.5	.4	.0	.0	.0	2.0	
3-4	*	.9	1.7	.3	.0	.0	2.9	*	.9	1.6	.3	.0	.0	2.8	
5-6	.0	.4	1.6	.7	*	.0	2.7	.0	.1	1.2	.2	*	.0	1.6	
7	.0	.2	1.0	.6	.1	.0	1.9	.0	*	.4	.3	.1	.0	.8	
8-9	.0	.0	.2	.4	.1	.0	.7	.0	*	*	.3	.1	.0	.4	
10-11	.0	.1	.1	.3	.2	*	.7	.0	.0	*	.1	.1	.0	.2	
12	.0	*	*	.2	*	*	.3	.0	.0	*	*	.0	.0	.1	
13-16	.0	.0	*	.1	*	.0	.2	.0	.0	*	*	.1	*	.2	
17-19	.0	.0	.0	.1	.1	*	.2	.0	.0	.0	*	*	*	*	
20-22	.0	.0	.0	*	*	.0	*	.0	.0	.0	.0	*	.0	*	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	4.6	5.7	2.8	.5	.1	14.8	.4	2.9	3.8	1.3	.4	*	8.9	95.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	9.5	6.6	.4	.0	.0	.0	16.5	
1-2	1.5	10.3	4.7	.0	.0	.0	22.5	
3-4	.3	7.8	12.8	1.7	.0	.0	22.6	
5-6	*	1.9	10.2	3.1	.3	.0	15.6	
7	*	.7	4.9	3.7	.5	*	9.9	
8-9	*	.2	1.3	2.2	.9	*	4.8	
10-11	*	.2	.8	1.7	.6	.1	3.4	
12	*	.1	.3	.8	.2	*	1.4	
13-16	.0	*	.1	.9	.5	.2	1.8	
17-19	.0	*	*	.2	.4	.1	.8	
20-22	.0	.0	.1	.1	.2	*	.4	
23-25	.0	.0	.0	*	.1	.1	.2	
26-32	.0	.0	.0	.1	.1	.1	.2	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.4	33.9	35.8	14.5	3.8	.6	100.0	4045

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.8	4.2	5.6	5.2	3.0	1.2	1.2	.6	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1064	5
6-7	.0	.6	2.8	5.1	5.7	3.9	3.0	1.3	2.0	.7	.5	.2	*	*	.0	.0	.0	.0	.0	1141	8
8-9	.0	.4	1.4	3.0	4.4	3.0	3.7	1.9	2.9	1.1	.8	.1	*	*	.0	.0	.0	.0	.0	990	9
10-11	.0	.8	.6	.8	2.0	1.2	1.3	.7	1.6	.7	.4	.2	.2	.1	.0	*	*	.0	.0	482	10
12-13	.0	.0	1.1	.9	.8	.7	.6	.4	.6	.3	.3	.2	.1	.0	*	.0	.0	.0	.0	278	9
>13	.0	.0	.0	.7	.7	.2	.3	.2	.3	.2	.2	.1	.1	.0	.0	*	*	.0	.0	136	11
INDET	2.6	.5	.6	.9	1.0	.5	.6	.2	.2	.2	.1	.0	*	.0	.0	.0	.0	.0	.0	323	5
TOTAL PCT	5.4	6.5	12.1	16.6	17.6	10.7	10.9	5.4	7.8	3.3	2.3	.8	.4	.2	*	*	.1	.0	.0	4414 100.0	8

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1858-1978

TABLE 20

AREA 0030 SOUTH ISLAND (NW)
41.8S 169.0E

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
77/78	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
75/76	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	*
73/74	.0	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	6	.1
71/72	1.0	2.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	28	.4
69/70	4.8	5.2	3.0	.6	.0	.0	.0	.0	.0	.0	.3	1.0	97	1.3
67/68	9.7	10.2	5.9	2.3	.0	.2	.0	.0	.0	.0	.0	1.0	189	2.6
65/66	11.4	17.4	10.9	5.4	.7	.0	.0	.0	.0	.0	.4	3.2	323	4.5
63/64	19.7	24.0	26.1	19.5	6.2	2.0	.5	.2	.0	.3	4.4	13.5	745	10.3
61/62	18.1	14.8	17.4	21.9	16.5	3.3	1.0	.6	.7	1.6	8.0	15.1	749	10.3
59/60	13.9	12.6	12.6	22.6	28.6	14.6	12.0	12.9	2.7	8.0	15.6	19.6	1062	14.7
57/58	8.3	7.0	11.8	13.7	30.9	30.3	17.3	10.9	12.5	20.6	22.3	19.9	1230	17.0
55/56	7.1	3.0	8.3	5.9	9.2	23.1	29.1	30.4	34.2	44.2	28.9	17.6	1420	19.6
53/54	3.8	1.0	2.1	2.6	5.7	11.8	22.7	25.8	23.4	17.7	15.4	6.4	801	11.1
51/52	1.6	1.1	.2	.6	.7	3.4	9.7	12.7	12.9	5.0	3.8	1.9	334	4.6
49/50	.5	.1	.6	1.6	.7	2.4	6.1	5.4	10.2	2.1	.7	.3	175	2.4
47/48	.2	.1	.3	1.2	.3	.9	1.0	.8	1.9	.3	.0	.5	44	.6
45/46	.0	.0	.0	.0	.5	1.5	.5	.8	1.4	.2	.1	.0	27	.4
43/44	.0	.0	.0	.0	.0	.7	.0	.4	.2	.0	.0	.0	6	.1
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	979	728	825	845	595	459	577	496	590	616	703	624	7237	100.0
MEAN	61.8	63.0	61.5	60.2	58.5	56.0	55.0	54.7	54.0	55.6	56.9	59.9	58.0	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1015	1010	1013	1012	1015	1011	1015	1012	1014	584
FEB	1016	1015	1015	1015	1017	1015	1016	1016	1016	661
MAR	1019	1022	1018	1016	1018	1020	1017	1014	1017	641
APR	1014	1006	1012	1016	1013	1019	1011	1013	1013	656
MAY	1013	1000	1012	1013	1014	1012	1013	1009	1013	557
JUN	1014	1012	1012	1013	1012	1014	1019	1011	1013	525
JUL	1016	1013	1012	1012	1012	1013	1014	1012	1013	552
AUG	1014	1011	1013	1010	1014	1007	1019	1014	1013	546
SEP	1012	990	1014	1015	1013	1014	1014	1014	1013	624
OCT	1016	1026	1015	1016	1016	1013	1014	1013	1015	657
NOV	1012	1017	1011	1013	1012	1015	1019	1011	1012	731
DEC	1011	1016	1010	1010	1012	1009	1011	1016	1011	597
ANN	1014	1012	1013	1013	1014	1014	1016	1013	1014	7331
OBS	1748	72	1680	452	1473	105	1963	238		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	985	993	1000	1009	1015	1019	1029	1028	1033
FEB	985	996	1002	1011	1017	1021	1027	1028	1033
MAR	986	994	1002	1013	1019	1023	1028	1031	1039
APR	985	987	993	1007	1015	1020	1026	1033	1035
MAY	984	986	992	1005	1013	1021	1031	1033	1034
JUN	983	987	994	1006	1013	1019	1029	1033	1036
JUL	979	980	991	1009	1015	1023	1029	1032	1034
AUG	980	987	996	1007	1013	1021	1029	1032	1039
SEP	977	983	996	1007	1014	1020	1030	1035	1040
OCT	977	987	998	1009	1016	1022	1031	1033	1035
NOV	987	992	996	1006	1013	1018	1024	1028	1031
DEC	981	991	997	1005	1012	1017	1029	1026	1031

JANUARY

PERIOD: (PRIMARY) 1881-1978
(OVER-ALL) 1870-1978

AREA 0031 FOVEAUX STRAIT
46.8S 168.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	4.5	.9	10.3	.0	.0	.0	.0	15.7	.0	.0	11.7	.0	1.3		.0	71.3
NE	3.6	2.2	3.6	.0	.0	.0	.0	8.0	.0	1.3	9.1	.0	.4		.0	81.0
E	3.3	1.9	3.7	.0	.0	.0	.0	8.8	.0	.0	15.3	.0	.0		.0	75.8
SE	11.1	.0	3.4	.0	.0	.0	.0	14.5	.0	.0	10.3	.0	.0		.0	75.2
S	11.3	3.3	.0	.0	.0	.0	.0	16.7	.0	.0	2.0	.0	.0		.0	81.3
SW	5.6	15.6	6.0	.0	.0	.0	.8	28.0	5.8	.4	2.3	.0	1.6		.0	62.3
W	8.2	20.5	4.8	.0	.0	.0	.8	34.3	2.3	1.3	3.3	.0	.0		.0	60.0
NW	7.9	3.3	5.7	.0	.0	.0	.0	18.9	1.9	.0	9.8	.0	1.5		1.5	66.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	7.7	.0	.0	.0	.0	.0	.0	7.7	.0	.0	.0	.0	7.7		.0	84.6
TOT PCT	6.5	9.2	5.0	.0	.0	.0	.4	20.9	1.9	.5	6.7	.0	.9		.2	69.2
TOT OBS:	565															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	2.3	4.6	1.6	.0	.0	.0	.0	12.5	2.3	.0	7.8	.0	2.3		.0	75.0
06&09	6.9	7.4	5.7	.0	.0	.0	.6	20.0	1.7	.0	6.9	.0	.6		.0	70.9
12&15	6.8	11.1	6.8	.0	.0	.0	.0	24.8	2.6	1.7	5.1	.0	.9		.9	65.0
18&21	8.4	10.2	4.8	.0	.0	.0	.6	24.0	1.2	.6	6.6	.0	.0		.0	68.3
TOT PCT	6.3	9.2	4.8	.0	.0	.0	.3	20.4	1.9	.3	6.6	.0	.9		.2	69.8
TOT OBS:	587															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.4	2.6	4.6	1.6	.4	.1		9.9	16.4	13.1	11.5	6.7	8.6	11.1	21.4	8.0	9.5
NE	.3	4.0	4.9	2.0	.2	.0		11.4	14.2	12.2	15.4	12.9	10.3	11.1	7.1	11.5	9.9
E	.1	3.7	3.8	.9	.3	.0		8.8	13.5	6.5	23.1	11.3	8.0	9.4	14.3	9.8	4.6
SE	.1	2.4	1.9	.2	.0	.1		4.7	11.7	3.9	3.8	6.3	4.6	4.8	.0	3.5	5.9
S	.6	2.9	2.4	.9	.4	.2		7.3	14.0	6.4	23.1	9.9	7.8	6.9	14.3	5.7	4.3
SW	.9	3.6	9.4	4.4	2.0	.1		20.4	19.0	21.4	15.4	25.4	23.9	16.0	.0	17.4	21.4
W	.7	5.0	9.0	6.8	3.0	.1		23.6	20.2	20.6	.0	20.4	26.4	26.3	42.9	27.8	22.4
NW	.4	2.5	5.0	2.9	.8	.1		11.8	17.7	14.5	7.7	6.5	9.2	9.9	.0	13.7	20.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.1							2.1	.0	1.4	.0	.8	1.1	4.6	.0	2.6	2.6
TOT OBS	40	167	280	138	49	6	700		16.7	147	13	124	87	131	7	115	76
TOT PCT	5.7	23.7	40.0	19.7	7.0	.9		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.0	4.5	3.1	.8	.4		9.9	16.4	13.0	7.5	11.6	8.6
NE	2.0	4.9	4.1	.4	.0		11.4	14.2	12.5	11.8	10.9	10.5
E	1.7	4.3	2.3	.6	.0		8.8	13.5	7.8	10.0	9.6	7.7
SE	1.3	2.5	.7	.1	.1		4.7	11.7	3.9	5.6	4.5	4.5
S	2.3	2.6	1.8	.5	.2		7.3	14.0	7.8	9.0	7.2	5.1
SW	2.4	5.7	8.0	3.2	1.1		20.4	19.0	20.9	24.8	15.2	19.0
W	2.9	6.5	7.9	4.3	2.0		23.6	20.2	18.9	22.9	27.2	25.7
NW	1.3	4.5	4.4	1.4	.2		11.8	17.7	13.9	7.6	9.4	16.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.1						2.1	.0	1.3	.9	4.3	2.6
TOT OBS	119	248	226	79	28	700		16.7	140	211	138	191
TOT PCT	17.0	35.4	32.3	11.3	4.0		100.0		100.0	100.0	100.0	100.0

JANUARY

PERIOD: (PRIMARY) 1881-1976
(OVER-ALL) 1870-1976

AREA 0031 FOVEAUX STRAIT
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.3	4.4	26.9	42.5	18.8	6.3	.0	16.1	100.0	160
06&09	.9	1.4	28.0	39.8	19.9	7.6	1.4	17.5	100.0	211
12&15	4.3	6.5	24.6	34.8	22.5	6.5	.7	16.0	100.0	138
18&21	2.6	3.1	25.7	41.9	18.3	7.3	1.0	17.0	100.0	191
TOT	15	25	187	280	138	49	5	16.7		700
PCT	2.1	3.6	26.7	40.0	19.7	7.0	.9		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.7	.4	4.8	4.2		5.9
NE	4.3	1.0	3.6	4.3		4.8
E	1.7	1.4	4.2	3.0		5.9
SE	.2	.5	2.7	1.4		6.3
S	3.1	1.4	1.4	2.7		4.6
SW	2.3	1.7	7.7	9.9		6.3
W	1.8	1.2	4.8	7.4		6.2
NW	.7	.0	6.4	3.1		6.3
VAR	.0	.0	.0	.0		.0
CALM	1.0	.5	1.0	.5		4.5
TOT OBS	35	18	76	79	207	5.8
TOT PCT	16.9	8.7	36.7	37.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	1.0	.5	.0	.8	2.4	2.5	.4	.2	.0	.0	3.3	
NE	.0	.0	.0	.4	1.9	1.1	.6	.7	1.2	.0	7.0	
E	.8	.0	.5	.5	2.5	1.2	.5	.0	.2	.5	6.5	
SE	.6	.0	.0	.5	1.1	.5	.0	.0	.0	.0	2.3	
S	.0	.0	.4	.8	.5	1.0	.0	.0	.7	.5	4.8	
SW	.0	.0	1.1	3.1	5.7	3.0	1.1	.0	.2	.0	7.4	
W	.0	.0	1.9	3.0	2.5	2.1	.8	.0	.0	.0	5.1	
NW	1.0	.0	.5	.7	3.1	.7	1.9	.0	.0	.5	2.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.5	.0	.0	.5	.5	.0	.0	1.4	
TOT OBS	7	1	9	22	41	25	12	3	5	3	79	207
TOT PCT	3.4	.5	4.3	10.6	19.8	12.1	5.8	1.4	2.4	1.4	38.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	1.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8
= OR >3000	2.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8
= OR >2500	7.7	11.5	12.0	12.0	12.0	12.0	12.0	12.0
= OR >2000	14.4	23.1	24.0	24.0	24.0	24.0	24.0	24.0
= OR >1000	25.0	40.4	43.3	43.3	43.3	43.3	43.3	43.3
= OR >600	27.4	48.1	51.9	52.9	53.4	53.4	53.4	53.4
= OR >300	28.4	50.5	55.3	57.2	57.7	57.7	57.7	57.7
= OR >150	28.4	50.5	55.3	57.2	58.2	58.2	58.2	58.2
= OR > 0	28.4	50.5	55.3	59.1	60.1	60.1	61.5	62.0
TOTAL	59	105	115	123	125	125	128	129

TOTAL NUMBER OF OBS: 208 PCT FREQ NH <5/8: 38.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
7.8	11.5	6.0	6.5	6.5	7.8	11.5	10.4	28.6	3.2	217

JANUARY

PERIOD: (PRIMARY) 1881-1970
(OVER-ALL) 1870-1978

TABLE 8

AREA 0031 FOVEAUX STRAIT
46.0S 168.1E

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.4	.2	.2	.0	.0	.0	.0	.2	.0	.0	.9	
	NO PCP	.9	.3	.5	.0	.0	.3	.3	.5	.0	.0	2.7	
	TOT %	1.2	.4	.7	.0	.0	.3	.3	.7	.0	.0	3.5	
1/2<1	PCP	.2	.0	.4	.0	.0	.0	.1	.3	.0	.0	.9	
	NO PCP	.5	.2	.4	.4	.0	.2	.6	.8	.0	.0	3.0	
	TOT %	.7	.2	.7	.4	.0	.2	.7	1.1	.0	.0	3.9	
1<2	PCP	.0	.0	.3	*	.1	.2	.1	*	.0	.0	.9	
	NO PCP	.2	.0	.2	.2	.1	.2	.0	.4	.0	.0	1.2	
	TOT %	.2	.0	.5	.2	.3	.4	.1	.4	.0	.0	2.1	
2<5	PCP	.1	.0	.0	.5	.2	.5	.4	*	.0	.0	1.8	
	NO PCP	.1	.2	.3	.3	.0	.2	.0	*	.0	.0	.9	
	TOT %	.3	.2	.3	.5	.2	.7	.4	.1	.0	.0	2.7	
5<10	PCP	.7	.6	.0	.2	.7	5.1	6.2	1.5	.0	.2	15.2	
	NO PCP	4.3	7.2	4.5	3.0	3.4	10.2	9.9	5.2	.0	1.4	49.1	
	TOT %	5.1	7.8	4.5	3.2	4.1	15.3	16.1	6.7	.0	1.6	64.4	
10+	PCP	.2	.2	.0	.0	.1	.1	.4	.2	.0	.0	1.1	
	NO PCP	2.3	3.3	2.8	.9	2.0	4.9	3.2	2.6	.0	.7	22.3	
	TOT %	2.5	3.5	2.8	.9	2.1	4.6	3.5	2.7	.0	.7	23.4	
TOT OBS													564
TOT PCT		9.9	12.1	9.5	5.2	6.6	21.5	21.1	11.7	.0	2.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.5	.0	.0	.0	.0	.1	.3	.5	.0		1.4	
	11-21	.6	.3	.2	.0	.0	.2	.0	.2	.0		1.4	
	22+	.0	.2	.5	.0	.0	.0	.0	.0	.0		.7	
	TOT %	1.2	.4	.7	.0	.0	.3	.3	.7	.0	.0	3.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	4-10	.0	.2	.0	.4	.0	.0	.0	.0	.0		.5	
	11-21	.2	.0	.4	.0	.0	.0	.1	.4	.0		1.1	
	22+	.5	.0	.4	.0	.0	.2	.6	.5	.0		2.1	
	TOT %	.7	.2	.7	.4	.0	.2	.7	1.1	.0	.0	3.9	
1<2	0-3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	4-10	.0	.0	.2	.2	.1	*	.0	.0	.0		.5	
	11-21	.0	.0	.3	*	.1	*	.0	.2	.0		.7	
	22+	.2	.0	.0	.0	.0	.2	.1	.2	.0		.7	
	TOT %	.2	.0	.5	.2	.3	.4	.1	.4	.0	.0	2.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.1	.2	.0	.2	.0	.0	.0		.7	
	11-21	.3	.0	.2	.4	.2	.4	.2	.1	.0		1.8	
	22+	.0	.0	.0	.0	.0	.2	.2	.0	.0		.4	
	TOT %	.3	.2	.3	.5	.2	.7	.4	.1	.0	.0	2.7	
5<10	0-3	.0	.2	.0	.0	.0	.8	.5	.2	.0	1.6	3.2	
	4-10	1.2	2.4	1.8	1.5	1.4	1.3	2.3	1.2	.0		13.1	
	11-21	2.5	3.3	2.2	1.6	2.1	7.4	5.9	2.8	.0		27.8	
	22+	1.4	2.0	.5	.1	.5	5.8	7.4	2.5	.0		20.2	
	TOT %	5.1	7.8	4.5	3.2	4.1	15.3	16.1	6.7	.0	1.6	64.4	
10+	0-3	.3	*	.0	.0	.5	.2	.1	.1	.0	.7	2.0	
	4-10	.6	1.1	1.8	.4	1.1	1.3	1.1	.6	.0		7.8	
	11-21	1.4	2.2	1.2	.3	.1	1.9	1.2	1.2	.0		9.6	
	22+	.2	.1	.0	.3	.4	1.2	1.1	.8	.0		4.1	
	TOT %	2.5	3.5	2.8	.9	2.1	4.6	3.5	2.7	.0	.7	23.4	
TOT OBS													564
TOT PCT		9.9	12.1	9.5	5.2	6.6	21.5	21.1	11.7	.0	2.3	100.0	

JANUARY

PERIOD: (PRIMARY) 1881-1978
(OVER-ALL) 1870-1978

AREA 0031 FOVEAUX STRAIT
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	3.1	.0	1.5	6.2	18.5	10.8	9.2	1.5	1.5	3.1	55.4	44.6	65
06&09	3.2	.0	4.8	4.8	20.6	12.7	3.2	1.6	4.8	1.6	57.1	42.9	63
12&15	2.3	.0	2.3	18.6	20.9	16.3	7.0	.0	2.3	.0	69.8	30.2	43
18&21	7.0	2.3	9.3	16.3	16.3	7.0	4.7	4.7	.0	.0	67.4	32.6	43
TOT	8	1	9	22	41	25	13	4	5	3	131	83	214
PCT	3.7	.5	4.2	10.3	19.2	11.7	6.1	1.9	2.3	1.4	61.2	38.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	3.1	3.9	2.3	2.3	54.7	33.6	128
06&09	4.0	3.4	2.9	2.9	64.6	22.3	175
12&15	3.4	3.4	2.6	2.6	60.7	27.4	117
18&21	3.6	4.2	.6	2.4	72.9	16.3	166
TOT	21	22	12	15	375	141	586
PCT	3.6	3.8	2.0	2.6	64.0	24.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	3.2	4.8	14.3	42.9	42.9	63
06&09	3.3	8.2	18.0	41.0	41.0	61
12&15	2.4	4.8	26.2	42.9	31.0	42
18&21	7.1	21.4	35.7	33.3	31.0	42
TOT	8	19	46	84	78	208
PCT	3.8	9.1	22.1	40.4	37.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.5	.0	.0	.5	.5	.0	3	1.6
60/64	.0	.0	1.0	.0	1.6	3.7	1.6	3.7	22	11.5
55/59	.0	1.6	1.0	.0	5.2	10.5	15.7	16.8	97	50.8
50/54	.0	.5	.5	1.6	2.6	7.3	9.9	12.0	66	34.6
45/49	.0	.0	.0	.0	.0	.5	.0	1.0	3	1.6
TOTAL	0	4	6	3	18	43	53	64	191	100.0
PCT	.0	2.1	3.1	1.6	9.4	22.5	27.7	33.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.0	.5	.0	.5	.0	.0	.0	.5	.0	.0
	1.4	2.2	1.0	.5	1.0	1.8	1.3	1.6	.0	.5
	5.6	8.6	8.0	4.1	2.6	6.9	6.5	5.8	.0	2.6
	1.7	3.1	1.4	1.8	3.8	11.8	9.0	1.3	.0	.5
	.0	.0	.0	.0	.0	1.6	.0	.0	.0	.0
	8.8	14.5	10.5	6.9	7.5	22.1	16.9	9.2	.0	3.7

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	70	68	63	57	51	49	48	56.8	158
06&09	70	64	62	56	51	48	47	56.0	200
12&15	70	69	60	55	50	50	49	55.0	138
18&21	68	62	59	54	49	48	45	54.4	193
TOT	70	64	61	55	50	48	45	55.5	689

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.8	15.4	36.5	17.3	26.9	80	52
06&09	.0	6.9	10.3	72.4	36.2	24.1	81	58
12&15	.0	11.1	4.4	15.6	24.4	44.4	83	45
18&21	.0	7.3	4.9	12.2	31.7	43.9	85	41
TOT	0	14	18	44	54	66	82	196

JANUARY

PERIOD: (PRIMARY) 1881-1978
(OVER-ALL) 1870-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
11/13	.0	.0	.0	.0	.0	.2	.2	2	.0	.4
9/10	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
7/8	.0	.0	.0	.2	.8	.0	.0	5	.0	1.0
6	.0	.0	.2	.2	.2	.2	.0	4	.0	.8
5	.0	.0	1.0	1.4	1.2	.2	.2	20	.0	4.0
4	.0	.2	.6	2.2	1.2	.0	.2	22	.8	3.6
3	.0	.2	2.2	2.8	.8	.0	.0	30	.6	5.4
2	.2	.0	5.8	6.8	1.4	.0	.0	71	1.4	12.8
1	.0	.6	8.0	9.2	.6	.0	.0	72	.6	13.8
0	.0	.4	9.0	6.2	.6	.0	.0	81	1.2	15.0
-1	.0	2.6	6.6	2.0	.0	.0	.0	56	.6	10.6
-2	.2	3.6	7.8	1.6	.2	.0	.0	67	1.0	12.4
-3	.4	1.6	2.2	.8	.0	.0	.0	25	.0	5.0
-4	.4	1.8	2.0	.4	.0	.0	.0	23	.0	4.6
-5	.2	.8	.4	.0	.0	.0	.0	7	.2	1.2
-6	.0	.6	.6	.2	.0	.0	.0	7	.0	1.4
-7/-8	.0	.2	.4	.0	.0	.0	.0	3	.2	.4
-9/-10	.0	.0	.4	.0	.0	.0	.0	2	.0	.4
TOTAL	7	63	236	150	37	3	3	499	33	466
PCT	1.4	12.6	47.3	30.1	7.4	.6	.6	100.0	6.6	93.4

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.0	.0	.0	.0	.0	.5
1-2	.5	1.4	1.8	.0	.0	.0	3.8
3-4	.0	.0	1.3	1.3	.0	.0	2.5
5-6	.0	.5	1.3	.5	.0	.0	2.3
7	.0	.0	.5	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	2.0	4.9	1.8	.0	.0	9.7

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2
1-2	.0	2.5	3.4	.0	.0	.0	5.9
3-4	.0	2.2	3.8	.0	.0	.0	5.9
5-6	.0	.2	2.3	.0	.0	.0	2.5
7	.0	.0	.9	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.9	10.4	.0	.0	.0	15.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7
1-2	.0	3.1	1.8	.0	.0	.0	4.9
3-4	.0	.7	.7	.0	.0	.0	1.4
5-6	.0	.0	2.0	.0	.0	.0	2.0
7	.0	.0	.7	.0	.0	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.5	.0	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.5	5.4	.0	.0	.0	10.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.4	.0	.0	.0	.0	1.4
1-2	.0	1.6	.2	.0	.0	.0	1.8
3-4	.0	.0	1.4	.7	.0	.0	2.2
5-6	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.1	2.0	.7	.0	.0	5.8

PERIOD: (OVER-ALL) 1963-1978 JANUARY AREA 0031 FOVEAUX STRAIT

TABLE 18 (CONT) 46.8S 168.1E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.7	1.3	1.4	.0	.0	.0	3.4
3-4	.0	.7	.0	.0	.0	.0	.7
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.7	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.5	.0	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.0	2.0	.0	.0	.7	5.4

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.3	.2	.0	.0	.0	2.5
3-4	.0	2.2	4.7	1.1	.0	.0	7.9
5-6	.0	.0	1.4	1.4	.0	.0	2.9
7	.0	.0	.7	2.3	.2	.0	3.2
8-9	.0	.0	.7	.7	.0	.0	1.4
10-11	.0	.0	.9	.0	.2	.0	1.1
12	.0	.0	.0	.7	1.4	.0	2.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.7	.0	.0	.7
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.5	8.6	7.0	1.8	.0	21.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.7	1.4	.0	.0	.0	2.0
3-4	.0	1.4	3.1	1.8	.0	.0	6.3
5-6	.0	.0	1.4	.0	.0	.0	1.4
7	.0	.0	2.0	1.8	.5	.0	4.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	1.4	.5	.0	2.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.7	.0	.0	.7
17-19	.0	.0	.0	.0	.5	.0	.5
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.7	.0	.0	.7
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.2	7.7	6.5	1.6	.0	18.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.2	.7	.7	.0	.0	.0	1.6	
3-4	.0	.7	2.3	.2	.0	.0	3.2	
5-6	.0	.0	.7	1.6	.0	.0	2.3	
7	.0	.0	.2	.2	.7	.0	1.1	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.2	.7	.0	.9	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.7	.0	.7	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	1.4	4.0	2.0	1.6	.7	9.9	96.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.3	2.1	.0	.0	.0	.0	6.4	
1-2	1.4	14.3	10.7	.0	.0	.0	26.4	
3-4	.0	7.9	17.1	5.0	.0	.0	30.0	
5-6	.0	.7	9.3	3.6	.0	.0	13.6	
7	.0	.0	5.0	4.3	1.4	.7	11.4	
8-9	.0	.0	.7	.7	.0	.0	1.4	
10-11	.0	.0	2.1	1.4	.7	.0	4.3	
12	.0	.0	.0	.7	1.4	.0	2.1	
13-16	.0	.0	.0	.7	.0	.0	.7	
17-19	.0	.0	.0	.7	.7	.7	2.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.7	.0	.0	.7	
26-32	.0	.0	.0	.0	.7	.0	.7	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.7	25.0	45.0	17.9	5.0	1.4	100.0	140

PERIOD: (OVER-ALL) 1950-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	4.2	9.5	3.7	6.3	1.1	.0	1.6	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	5
6-7	.0	2.1	4.7	7.4	5.8	2.6	2.1	2.1	.5	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	54	7
8-9	.0	1.1	1.6	3.7	3.7	3.2	3.7	.5	.5	1.1	.0	.0	.5	.0	.0	.0	.5	.0	.0	38	9
10-11	.0	.0	1.1	.5	1.6	1.6	.5	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	7
12-13	.0	.0	1.1	.0	.5	.5	.0	.0	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	10
>13	.0	.0	.0	.5	1.6	.0	.0	.0	2.6	.5	.0	.5	.0	.0	.0	.0	.0	.0	.0	11	12
INDET	1.1	1.6	.5	1.1	.5	1.1	1.6	.0	.0	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	17	7
TOTAL	2	17	35	32	58	19	15	8	10	8	1	2	2	0	0	1	0	0	0	190	7
PCT	1.1	8.9	18.4	16.8	30.0	10.0	7.9	4.2	5.3	4.2	.5	1.1	1.1	.0	.0	.5	.0	.0	.0	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1889-1978
(OVER-ALL) 1858-1978

AREA 0031 FOVEAUX STRAIT
46.8S 167.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	16.0	.8	.8	.0	.0	.0	.0	17.7	1.3	.0	9.7	.0	1.3		.0	70.0
NE	1.5	1.0	2.0	.0	.0	.0	.0	4.5	2.0	.0	13.4	.0	.5		.0	79.7
E	3.2	.0	15.3	.0	.0	.0	.0	18.5	.0	.0	4.8	.0	3.2		.0	73.4
SE	14.1	.0	5.9	.0	.0	.0	.0	20.0	9.4	.0	5.9	.0	.0		.0	64.7
S	1.9	3.9	1.3	.0	.0	.0	.0	7.1	2.6	.0	5.8	.0	.0		.0	84.5
SW	4.1	13.3	1.6	.0	.0	.0	.0	19.0	1.6	.0	6.0	.0	.0		.0	73.4
W	2.9	10.9	1.9	.0	.0	.0	.0	15.7	6.9	.0	1.0	.0	.0		1.0	75.8
NW	11.4	4.7	5.5	.0	.0	.0	.0	18.5	3.1	.0	4.7	.0	.0		.0	73.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	7.1	.0	.0	.0	.0	.0	7.1	.0	.0	28.6	.0	.0		.0	64.3
TOT PCT	6.1	6.3	3.2	.0	.0	.0	.0	15.2	3.2	.0	6.5	.0	.4		.2	74.5
TOT OBS:	474															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	4.7	4.7	2.8	.0	.0	.0	.0	11.2	1.9	.0	6.5	.0	.9		.9	78.5
06&09	9.0	6.0	2.2	.0	.0	.0	.0	16.4	2.2	.0	3.7	.0	.7		.0	76.9
12&15	4.5	6.2	1.8	.0	.0	.0	.0	14.5	4.5	.0	7.3	.0	.0		.0	73.6
18&21	7.5	6.2	4.8	.0	.0	.0	.0	18.5	4.1	.0	8.9	.0	.0		.0	68.5
TOT PCT	6.6	6.2	3.0	.0	.0	.0	.0	15.5	3.2	.0	6.6	.0	.4		.2	74.0
TOT OBS:	497															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	5.4	4.6	2.4	.7	.3		14.1	16.1	16.3	3.8	12.3	14.2	14.5	20.0	14.2	13.2
NE	1.0	4.5	3.8	.6	*	.0		10.0	11.2	4.2	19.2	10.1	9.9	11.6	15.0	12.9	10.0
E	.8	2.9	1.7	.3	.2	.0		5.9	10.7	5.0	15.4	7.5	.0	9.4	5.0	4.7	4.5
SE	.3	2.2	1.7	.7	.0	.0		4.9	11.8	6.3	.0	4.8	2.6	5.4	.0	6.0	3.6
S	.9	2.9	3.6	1.3	.2	.0		8.9	13.8	7.7	.0	11.5	15.5	7.1	.0	7.8	9.5
SW	.2	9.7	6.5	5.5	.9	*		18.8	17.4	16.7	13.5	23.3	23.7	17.9	22.5	16.6	17.3
W	.9	4.8	8.7	5.8	1.1	.3		21.6	17.9	27.4	30.8	17.8	12.9	20.8	17.5	21.6	25.5
NW	.7	2.5	5.2	3.1	1.3	.2		13.0	18.9	13.1	9.6	8.9	17.7	11.6	20.0	14.4	14.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.7							2.7	.0	3.2	7.7	3.8	3.4	1.8	.0	1.7	1.8
TOT OBS	48	183	213	117	26	5	592		15.4	124	13	104	58	112	10	116	55
TOT PCT	8.1	30.9	36.0	19.8	4.4	.8		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.0	6.3	4.0	1.0	.8		14.1	16.1	15.1	13.0	15.0	13.9
NE	2.2	5.5	2.2	.1	.0		10.0	11.2	5.7	10.0	11.9	12.0
E	1.7	3.6	.5	.2	.0		5.9	10.7	6.0	4.8	9.0	4.7
SE	1.6	2.6	.6	.2	.0		4.9	11.8	5.7	4.0	4.9	5.3
S	1.9	3.6	2.7	.7	.0		8.9	13.8	6.9	13.0	6.6	8.3
SW	1.9	7.4	6.6	2.5	.4		18.8	17.4	16.4	23.5	18.2	16.8
W	2.2	7.9	8.7	2.3	.5		21.6	17.9	27.7	16.0	20.5	22.8
NW	1.9	3.8	4.4	2.2	.7		13.0	18.9	12.8	12.0	12.3	14.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.7						2.7	.0	3.6	3.7	1.6	1.8
TOT OBS	107	241	176	54	14	592		15.4	137	162	122	171
TOT PCT	18.1	40.7	29.7	9.1	2.4		100.0		100.0	100.0	100.0	100.0

FEBRUARY

PERIOD: (PRIMARY) 1889-1978
(OVER-ALL) 1858-1978

AREA 0031 FOVEAUX STRAIT
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.6	1.5	26.3	37.2	22.6	6.6	2.2	17.3	100.0	137
06&09	3.7	7.4	31.5	33.3	19.8	3.7	.6	14.6	100.0	162
12&15	1.6	8.2	32.0	37.7	15.6	4.9	.0	14.6	100.0	122
18&21	1.8	4.7	33.3	36.3	20.5	2.9	.6	15.2	100.0	171
TOT	16	32	163	213	117	26	5	15.4		592
PCT	2.7	5.4	30.9	36.0	19.8	4.4	.8		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.8	.4	3.3	6.7		6.3
NE	2.3	1.3	4.1	1.8		4.7
E	2.4	.7	1.8	2.1		4.6
SE	1.7	.0	1.0	3.2		5.5
S	1.3	1.1	2.2	1.1		4.8
SW	1.9	2.9	6.8	3.3		5.2
W	4.7	4.0	10.6	6.1		5.2
NW	3.3	1.4	6.0	4.5		5.4
VAR	.0	.0	.0	.0		.0
CALM	.8	.0	1.6	1.9		6.0
TOT OBS	52	30	96	79	257	5.3
TOT PCT	20.2	11.7	37.4	30.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
1.3	.0	.0	1.9	1.9	1.9	.4	.0	.3	.9	3.8	
.1	.0	.0	.2	.9	2.2	.5	.0	.5	.3	4.8	
.0	.0	.7	.3	1.2	.7	.7	.0	.0	.0	3.5	
.0	.0	.5	1.3	1.9	.4	.1	.0	.0	.0	1.7	
.0	.0	.0	.7	.4	1.0	1.0	.3	.0	.0	2.3	
.4	.1	.9	1.0	2.1	3.1	.5	.1	.0	.0	6.9	
.0	.3	.0	1.5	4.2	4.1	1.8	.0	.3	1.1	12.3	
.2	.0	.0	.4	3.7	1.8	1.4	.8	.1	.5	6.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1.6	.0	.0	.0	.0	1.2	.0	.0	.0	.0	1.6	
9	1	5	18	42	42	16	3	3	7	111	257
3.5	.4	1.9	7.0	16.3	16.3	6.2	1.2	1.2	2.7	43.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	2.3	3.5	3.8	3.8	3.8	3.8	3.8	3.8
= OR >5000	3.5	4.6	5.0	5.0	5.0	5.0	5.0	5.0
= OR >3500	7.3	10.4	11.2	11.2	11.2	11.2	11.2	11.2
= OR >2000	19.6	26.5	27.3	27.3	27.3	27.3	27.3	27.3
= OR >1000	26.9	39.6	42.3	42.7	43.1	43.1	43.1	43.1
= OR >600	30.0	46.2	49.6	50.0	50.4	50.4	50.4	50.4
= OR >300	31.2	47.7	51.5	51.9	52.3	52.3	52.3	52.3
= OR >150	31.2	48.1	51.9	52.3	52.7	52.7	52.7	52.7
= OR > 0	31.2	48.1	52.3	53.1	55.0	55.0	55.8	56.5
TOTAL	81	125	136	138	143	143	145	147

TOTAL NUMBER OF OBS: 260 PCT FREQ NH <5/8: 43.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
8.8	10.3	11.0	6.6	5.1	9.9	10.6	8.4	26.4	2.9	273

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PERIOD: (PRIMARY) 1889-1978
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.2	.0	.2	.0	.0	.4	
	NO PCP	.5	.0	.0	.0	.0	.0	.0	.1	.0	.4	1.1	
	TOT %	.5	.0	.0	.0	.0	.2	.0	.3	.0	.4	1.5	
1/2<1	PCP	.2	.1	.1	.0	.0	.2	.0	.4	.0	.0	1.1	
	NO PCP	.4	.7	.1	.0	.2	1.1	.2	.2	.0	.4	3.4	
	TOT %	.6	.8	.2	.0	.2	1.3	.2	.6	.0	.4	4.4	
1<2	PCP	.2	.1	.0	.0	.0	.0	.0	.2	.0	.0	.4	
	NO PCP	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.3	.1	.0	.0	.0	.0	.0	.2	.0	.0	.6	
2<5	PCP	.4	.1	.0	.0	.0	.5	.4	.0	.0	.0	1.3	
	NO PCP	.4	.5	.0	.2	.0	.0	.2	.2	.0	.0	1.5	
	TOT %	.7	.5	.0	.2	.0	.5	.6	.2	.0	.0	2.7	
5<10	PCP	1.5	.3	1.1	.7	.4	2.6	2.3	1.6	.0	.2	10.8	
	NO PCP	5.0	6.1	1.8	1.2	4.9	8.2	7.5	5.4	.0	.6	40.7	
	TOT %	6.4	6.3	2.9	1.9	5.3	10.9	9.9	7.1	.0	.8	51.5	
10+	PCP	.0	.0	.0	.2	.2	.2	.7	.0	.0	.0	1.3	
	NO PCP	3.9	2.8	3.4	2.2	2.5	6.5	10.4	5.0	.0	1.3	38.0	
	TOT %	3.9	2.8	3.4	2.4	2.7	6.6	11.2	5.0	.0	1.3	39.2	
	TOT OBS												474
	TOT PCT	12.5	10.7	6.5	4.5	8.2	19.5	21.8	13.4	.0	3.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	
	4-10	.4	.0	.0	.0	.0	.0	.0	.0	.0		.4	
	11-21	.1	.0	.0	.0	.0	.2	.0	.1	.0		.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	TOT %	.5	.0	.0	.0	.0	.2	.0	.3	.0	.4	1.5	
1/2<1	0-3	.0	.1	.1	.0	.0	.0	.2	.2	.0	.4	1.1	
	4-10	.0	.5	.1	.0	.0	.4	.0	.0	.0		1.1	
	11-21	.6	.2	.0	.0	.0	.2	.0	.2	.0		1.3	
	22+	.0	.0	.0	.0	.2	.6	.0	.2	.0		1.1	
	TOT %	.6	.8	.2	.0	.2	1.3	.2	.6	.0	.4	4.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.1	.0	.0	.0	.0	.0	.0	.0		.2	
	11-21	.2	.1	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.2	.0		.2	
	TOT %	.3	.1	.0	.0	.0	.0	.0	.2	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.4	.0	.2	.0	.0	.0	.0	.0		.8	
	11-21	.2	.1	.0	.0	.0	.2	.0	.0	.0		.4	
	22+	.4	.1	.0	.0	.0	.3	.6	.2	.0		1.5	
	TOT %	.7	.5	.0	.2	.0	.5	.6	.2	.0	.0	2.7	
5<10	0-3	.2	.4	.3	.2	.9	.2	.4	.2	.0	.8	3.8	
	4-10	2.0	2.3	1.4	1.0	1.7	3.6	1.2	.9	.0		14.3	
	11-21	1.8	2.8	1.0	.7	2.2	2.6	3.0	2.8	.0		16.8	
	22+	2.4	.8	.2	.0	.4	4.3	5.4	3.2	.0		16.6	
	TOT %	6.4	6.3	2.9	1.9	5.3	10.9	9.9	7.1	.0	.8	51.6	
10+	0-3	.1	.7	.6	.2	.0	.0	.2	.4	.0	1.3	3.4	
	4-10	1.5	1.2	1.3	.9	1.2	1.8	2.9	1.7	.0		12.6	
	11-21	1.5	.9	1.1	.5	.8	3.6	6.3	1.6	.0		16.4	
	22+	.7	.0	.4	.7	.7	1.2	1.7	1.2	.0		6.7	
	TOT %	3.8	2.8	3.4	2.4	2.7	6.6	11.2	4.9	.0	1.3	39.2	
	TOT OBS												475
	TOT PCT	12.5	10.6	6.5	4.5	8.2	19.5	21.9	13.4	.0	2.9	100.0	

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PERIOD: (PRIMARY) 1889-1978
(OVER-ALL) 1858-197e

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	4.3	1.4	1.4	7.2	14.5	24.6	5.8	2.9	1.4	1.4	65.2	34.8	69
06&09	.0	.0	4.8	11.3	8.1	11.3	11.3	1.6	1.6	3.2	53.2	46.8	62
12&15	7.9	.0	1.6	1.6	15.9	6.3	4.8	.0	1.6	3.2	42.9	57.1	63
18&21	2.9	.0	.0	8.8	25.0	20.6	2.9	.0	.0	2.9	63.2	36.8	68
TOT	10	1	5	19	42	42	16	3	3	7	148	114	262
PCT	3.8	.4	1.9	7.3	16.0	16.0	6.1	1.1	1.1	2.7	56.5	43.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.9	4.6	.0	5.6	45.4	42.6	108
06&09	2.2	1.5	.0	3.0	59.0	34.3	134
12&15	3.6	5.5	1.8	.9	43.6	44.5	110
18&21	.7	6.2	.7	2.1	57.5	32.9	146
TOT	10	22	3	14	260	189	498
PCT	2.0	4.4	.6	2.8	52.2	38.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	4.3	8.7	20.3	44.9	34.8	69
06&09	.0	4.8	19.4	33.9	46.8	62
12&15	8.1	9.7	14.5	27.4	58.1	62
18&21	3.0	3.0	13.4	50.7	35.8	67
TOT	10	17	44	103	113	260
PCT	3.8	6.5	16.9	39.6	43.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.8	.0	.8	.4	.4	6	2.4
60/64	.0	.4	.0	.4	1.2	3.2	3.6	7.9	42	16.7
55/59	.0	1.2	1.2	.4	5.6	12.3	13.9	19.0	135	53.6
50/54	.0	.0	.8	.8	4.4	6.0	4.8	6.3	58	23.0
45/49	.0	.0	.0	.4	.8	.8	.4	2.0	11	4.4
TOTAL	0	4	5	7	30	58	58	90	252	100.0
PCT	.0	1.6	2.0	2.8	11.9	23.0	23.0	35.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.7	.4	.4	.0	.0	.0	.0	.5	.0	.4
3.4	2.2	2.5	.1	.0	1.4	3.7	2.7	.0	.8
6.0	6.1	4.2	3.1	3.5	7.5	15.7	6.4	.0	1.2
2.2	1.4	2.0	1.4	2.5	3.8	6.5	2.9	.0	.4
.0	.0	.0	.1	1.0	.9	2.0	.4	.0	.0
12.2	10.0	9.0	4.7	6.9	13.6	27.9	12.9	.0	2.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	67	66	63	58	52	47	45	57.3	197
06&09	66	65	62	57	51	48	47	56.5	180
12&15	66	63	60	55	49	48	46	55.7	121
18&21	64	62	61	55	50	48	47	54.8	175
TOT	67	64	62	56	50	48	45	55.9	593

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	10.1	15.9	24.6	24.6	24.6	79	69
06&09	.0	6.9	12.1	25.9	22.4	32.8	81	58
12&15	.0	4.9	11.5	18.0	16.4	49.2	83	61
18&21	.0	2.9	7.2	21.7	27.5	40.6	85	69
TOT	0	16	30	58	59	94	82	257

FEBRUARY

PERIOD: (PRIMARY) 1889-1978
(OVER-ALL) 1858-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.2	.0	.0	1	.0	.2
11/13	.0	.0	.0	.7	.2	.0	4	.2	.7
9/10	.0	.0	.0	.0	.9	.0	4	.2	.7
7/8	.0	.0	.4	.4	.4	.9	10	.0	2.2
6	.0	.0	.0	.4	.7	.0	5	.2	.9
5	.0	.0	.9	2.2	1.8	.2	23	.4	4.7
4	.0	.0	.9	3.8	.9	.0	25	.4	5.1
3	.0	.4	1.6	4.7	1.6	.0	37	.4	7.8
2	.0	.7	3.6	6.2	1.3	.0	53	.4	11.4
1	.0	.2	6.0	5.3	1.8	.0	60	1.3	12.0
0	.0	1.1	6.9	4.9	.7	.0	61	1.8	11.8
-1	.0	3.9	5.1	3.6	.0	.0	54	.2	11.8
-2	.0	2.7	4.5	1.1	.0	.0	37	.7	7.6
-3	.4	2.2	4.0	.4	.2	.0	33	.4	6.9
-4	.2	1.6	1.1	.0	.0	.0	13	.2	2.7
-5	.7	.2	1.3	.4	.2	.0	13	.0	2.9
-6	.2	.4	.7	.0	.0	.0	6	.0	1.3
-7/-8	.0	1.1	.4	.4	.0	.0	9	.0	2.0
-9/-10	.0	.0	.2	.0	.0	.0	1	.0	.2
TOTAL	7	63	169	157	48	5	449	32	417
PCT	1.6	14.0	37.6	35.0	10.7	1.1	100.0	7.1	92.9

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	1.3	.4	.0	.0	.0	1.7
3-4	.0	1.8	1.4	.9	.0	.0	4.1
5-6	.0	.5	.7	.5	.0	.0	1.7
7	.0	.0	.8	.0	.4	.0	1.2
8-9	.0	.0	.5	.7	.0	.0	1.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.9	3.9	2.1	.4	.0	10.2

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	.1	.0	.0	.0	.0	1.2
1-2	.5	2.5	1.5	.0	.0	.0	4.5
3-4	.0	1.2	.6	.0	.0	.0	1.8
5-6	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.5	.0	.1	.0	.6
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.5	.0	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	3.8	3.8	.1	.1	.0	9.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.5	.0	.0	.0	.0	.8
1-2	.0	1.7	.4	.0	.0	.0	2.0
3-4	.0	.4	2.1	.0	.0	.0	2.5
5-6	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.9	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.5	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.5	2.8	.9	.5	.0	7.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.4	.0	.0	.0	.0	1.4
1-2	.0	1.7	.6	.0	.0	.0	2.3
3-4	.5	.1	1.1	.0	.0	.0	1.7
5-6	.0	.0	.6	.9	.0	.0	1.5
7	.0	.0	.0	.6	.0	.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	3.2	2.3	1.5	.0	.0	7.5

PERIOD: (OVER-ALL) 1963-1978 FEBRUARY AREA 0031 FOVEAUX STRAIT
TABLE 18 (CONT) 46.8S 167.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.7	.0	.0	.0	.0	.7
3-4	.0	1.3	.4	.0	.0	.0	1.7
5-6	.0	.5	.5	.0	.0	.0	.9
7	.0	.0	1.2	.8	.0	.0	2.0
8-9	.0	.0	.0	.0	.4	.0	.4
10-11	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.5	2.0	1.2	.4	.0	6.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.2	1.5	.0	.0	.0	2.7
3-4	.0	1.7	.5	.0	.0	.0	2.1
5-6	.0	.0	2.0	.9	.0	.0	3.0
7	.0	.0	1.5	.5	.0	.0	2.0
8-9	.0	.5	.9	.9	1.7	.0	4.0
10-11	.0	.0	.9	.2	.0	.0	1.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.1	.1	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.3	7.5	2.6	1.8	.1	15.3

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.9	.0	.0	.0	.0	1.9	
1-2	.4	1.3	2.7	.0	.0	.0	4.4	
3-4	.0	1.2	5.7	.7	.0	.0	7.6	
5-6	.0	.0	.8	.9	.0	.0	1.7	
7	.0	.5	3.4	1.8	.0	.0	5.7	
8-9	.0	.0	.5	.5	.8	.0	1.8	
10-11	.0	1.4	.0	.4	.0	.5	2.3	
12	.0	.0	.5	.0	.0	.0	.5	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.8	.4	1.2	
20-22	.0	.0	.0	.0	.5	.0	.5	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	6.3	13.6	4.1	2.1	.8	27.4	

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.9	.0	.0	.0	.0	.9	
1-2	.6	2.0	1.4	.0	.0	.0	4.0	
3-4	.0	.5	1.5	.2	.0	.0	2.3	
5-6	.0	.5	.0	1.1	.0	.0	1.5	
7	.0	.0	.6	1.5	.0	.0	2.1	
8-9	.0	.0	.9	.6	.0	.0	1.5	
10-11	.0	.0	.0	.0	.5	.0	.5	
12	.0	.0	.0	.5	.0	.0	.5	
13-16	.0	.0	.0	.0	.0	.5	.5	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	3.9	4.5	3.9	.5	.5	13.9	96.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.7	5.2	.0	.0	.0	.0	9.9	
1-2	1.4	12.3	8.5	.0	.0	.0	22.2	
3-4	.5	8.5	13.2	1.9	.0	.0	24.1	
5-6	.0	1.4	5.7	4.2	.0	.0	11.3	
7	.0	.5	8.0	6.1	.5	.0	15.1	
8-9	.0	.5	2.8	2.8	2.8	.0	9.0	
10-11	.0	1.4	1.4	.9	.9	.5	5.2	
12	.0	.0	.5	.5	.0	.0	.9	
13-16	.0	.0	.0	.0	.0	.5	.5	
17-19	.0	.0	.0	.0	.9	.5	1.4	
20-22	.0	.0	.0	.0	.5	.0	.5	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.6	29.7	40.1	16.9	5.7	1.4	100.0	212

PERIOD: (OVER-ALL) 1954-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	5.0	10.8	3.9	3.1	1.9	1.2	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	71	4
6-7	.0	1.5	3.1	4.6	3.1	3.9	.4	1.2	3.1	2.3	.4	.4	.0	.0	.0	.0	.0	.0	.0	62	9
8-9	.0	.4	1.5	5.0	4.2	.8	2.7	.0	2.3	1.2	1.2	.4	.0	.0	.4	.0	.0	.0	.0	52	10
10-11	.0	.0	2.3	1.2	.4	.8	3.5	.4	1.9	1.5	.8	.4	.4	.0	.0	.0	.0	.0	.0	35	11
12-13	.0	.0	1.5	.0	.0	.8	.4	.0	.8	.8	.4	.8	.0	.0	.0	.0	.0	.0	.0	14	12
>13	.0	.0	.0	.0	.0	.0	.0	.0	.8	1.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	7	16
INDET	1.5	1.9	.4	.0	.8	.0	.4	.4	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	6
TOTAL	6	23	51	38	30	21	22	6	26	21	8	5	1	0	1	0	0	0	0	259	8
PCT	2.3	8.9	19.7	14.7	11.6	8.1	8.5	2.3	10.0	8.1	3.1	1.9	.4	.0	.4	.0	.0	.0	.0	100.0	

MARCH

PERIOD: (PRIMARY) 1882-1977
(OVER-ALL) 1857-1977

AREA 0031 FOVEAUX STRAIT
46.0S 168.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	5.3	6.0	1.3	.0	.0	.0	.0	13.2	2.0	.0	5.3	.0	.0	4.0		75.5
NE	4.9	1.6	1.6	.0	.0	.0	.0	8.2	1.6	.0	10.6	.0	1.6	.0		78.0
E	.0	2.4	2.4	.0	.0	.0	.0	4.7	.0	.0	15.3	.0	.0	.0		80.0
SE	7.3	25.5	2.4	.0	.0	.0	.0	35.2	4.8	.0	12.1	1.2	.0	.0		46.7
S	8.6	22.4	1.7	.0	.0	.0	.0	32.8	.0	.0	3.4	1.7	.0	.0		62.1
SW	9.8	10.8	3.3	.0	.0	.0	.0	23.8	1.1	.0	6.5	.0	.0	.0		68.6
W	4.5	7.3	1.9	.0	.0	.0	.0	13.7	2.6	1.0	8.0	.0	.0	.0		74.8
NW	8.0	3.5	1.0	.0	.0	.0	.0	12.6	2.5	.5	3.5	2.0	.0	1.0		77.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	14.3	.0	.0	.0	.0	.0	.0	14.3	.0	.0	14.3	.0	.0	.0		71.4
TOT PCT	6.4	8.9	2.1	.0	.0	.0	.0	17.3	1.8	.2	8.2	.5	.2	.5		71.3
TOT OBS:	439															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.4	5.4	.9	.0	.0	.0	.0	11.6	.0	.0	7.1	.9	.0		.0	79.5
06&09	6.3	8.6	2.3	.0	.0	.0	.0	17.2	.0	.0	8.6	.0	.8		.0	73.4
12&15	8.4	5.3	3.2	.0	.0	.0	.0	16.8	4.2	.0	7.4	1.1	.0		1.1	69.5
18&21	7.0	14.8	1.7	.0	.0	.0	.0	23.5	2.6	.9	9.6	.0	.0		.9	62.6
TOT PCT	6.7	8.7	2.0	.0	.0	.0	.0	17.3	1.8	.2	8.2	.4	.2		.4	71.3
TOT OBS:	450															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	3.7	2.2	2.2	.7	.4		9.6	18.1	9.7	.0	11.2	6.0	13.7	.0	9.2	6.3
NE	.7	3.9	4.8	2.8	.4	.0		12.3	15.2	8.0	20.8	20.2	8.6	16.1	22.2	10.6	8.7
E	.1	3.5	2.1	1.4	1.8	.0		8.9	18.5	8.7	12.5	10.4	12.3	9.4	8.3	5.2	7.7
SE	.3	1.8	2.4	3.7	1.1	.0		9.3	21.6	6.5	16.7	7.9	14.4	8.4	13.9	10.1	9.5
S	.1	2.7	2.4	.8	.8	.0		6.8	16.4	6.1	8.3	8.7	8.2	5.0	.0	6.0	9.5
SW	.9	5.9	9.1	3.2	1.3	.1		20.5	15.9	19.7	25.0	18.8	22.4	16.8	22.2	24.2	23.1
W	.8	3.4	6.4	6.5	1.6	.4		19.0	20.2	24.3	.0	14.0	15.7	17.8	16.7	16.8	26.0
NW	.6	2.7	4.0	2.7	1.1	.8		11.8	20.0	15.6	16.7	6.5	10.4	11.8	16.7	13.6	7.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.8							1.8	.0	1.4	.0	2.2	.0	1.0	.0	4.3	1.9
TOT OBS	32	156	189	130	50	9	566		17.8	147	6	89	67	104	9	92	52
TOT PCT	5.7	27.6	33.4	23.0	8.8	1.6		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.4	3.8	1.8	1.8	.8		9.6	18.1	9.3	9.0	12.6	8.2
NE	1.6	6.0	3.2	1.4	.1		12.3	15.2	8.5	15.2	16.6	9.9
E	1.4	3.4	1.5	2.1	.4		8.9	18.5	8.8	11.2	9.3	6.1
SE	1.2	2.2	2.0	3.2	.7		9.3	21.6	6.9	11.5	8.8	9.9
S	1.5	1.9	2.6	.1	.7		6.8	16.4	6.2	8.5	4.6	7.3
SW	3.2	7.5	7.3	2.4	.1		20.5	15.9	19.9	20.4	17.3	23.6
W	1.9	4.8	8.3	3.6	.5		19.0	20.2	23.4	14.7	17.7	20.1
NW	2.3	2.6	4.2	1.9	.9		11.8	20.0	15.7	8.2	12.2	11.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.8						1.8	.0	1.3	1.3	.9	3.5
TOT OBS	92	182	175	93	24	566		17.8	153	156	113	144
TOT PCT	16.3	32.2	30.9	16.4	4.2		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1882-1977
(OVER-ALL) 1857-1977

AREA 0031 FOVEAUX STRAIT
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
				WIND SPEED (KNOTS)						
00&03	1.3	3.9	32.7	36.6	17.6	7.8	.0	16.4	100.0	153
06&09	1.3	4.5	25.0	35.3	19.2	11.5	3.2	18.7	100.0	156
12&15	.9	1.8	34.5	32.7	19.5	8.8	1.8	17.5	100.0	113
18&21	3.5	4.9	19.4	28.5	35.4	6.9	1.4	18.7	100.0	144
TOT	10	22	156	169	130	50	9	17.8		566
PCT	1.8	3.9	27.6	33.4	23.0	8.8	1.6		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.6	.9	6.4	2.6		5.7
NE	4.3	2.5	4.7	4.7		5.0
E	1.0	.9	1.2	3.6		6.0
SE	1.0	.6	2.1	1.8		5.5
S	.4	.4	2.2	2.0		6.4
SW	2.3	3.2	8.7	4.9		5.5
W	2.2	4.7	6.9	6.8		5.6
NW	1.5	.2	5.7	5.7		6.5
VAR	.0	.0	.0	.0		.0
CALM	1.0	.5	.5	1.0		4.8
TOT OBS	31	28	78	66	203	5.6
TOT PCT	15.3	13.8	38.4	32.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.9	.9	1.8	1.0	.5	.4	.5	.0	5.5	
NE	1.0	.0	.5	.0	3.1	1.7	.0	.0	.0	.0	9.9	
E	.0	.0	.5	1.0	1.7	1.6	.0	.0	.0	.0	1.8	
SE	.0	.0	.0	.0	1.8	1.1	.5	.0	.0	.0	2.1	
S	.0	.0	.0	.4	.5	1.7	1.0	.0	.5	.0	.7	
SW	.0	.0	.5	1.5	3.4	3.3	.1	.0	.0	.0	10.0	
W	1.0	.4	.5	1.4	1.6	4.1	1.4	.0	.0	.0	10.9	
NW	.0	.1	.6	2.7	1.4	2.7	.5	1.1	.0	.0	3.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.5	.0	.0	.0	.5	.0	.0	.0	.5	.0	1.5	
TOT OBS	5	1	7	14	33	35	8	3	3	0	92	203
TOT PCT	2.5	.5	3.4	7.9	15.3	17.2	3.9	1.5	1.5	.0	45.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9
= OR >5000	1.4	2.9	2.9	2.9	2.9	2.9	2.9	3.4
= OR >3500	4.3	6.8	6.8	6.8	6.8	6.8	6.8	7.2
= OR >2000	14.0	23.2	23.7	23.7	23.7	23.7	23.7	24.2
= OR >1000	21.3	36.2	38.6	38.6	38.6	39.1	39.1	39.6
= OR >600	26.1	43.0	46.9	46.9	46.9	47.3	47.3	47.8
= OR >300	27.5	45.4	49.8	49.8	50.2	50.7	50.7	51.2
= OR >150	27.5	45.4	49.8	49.8	51.2	51.7	51.7	52.2
= OR > 0	27.5	45.4	50.7	50.7	52.7	53.1	54.1	54.6
TOTAL	57	94	105	105	109	110	112	113

TOTAL NUMBER OF OBS: 207

PCT FREQ NH <5/8: 45.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
7.4	8.3	11.6	10.6	7.4	5.6	9.7	12.5	24.5	2.3	216

MARCH

PERIOD: (PRIMARY) 1882-1977
(OVER-ALL) 1857-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.2	.5	.2	.5	.0	.2	.2	.1	.0	.0	1.8	
	TOT %	.2	.5	.2	.5	.0	.2	.2	.1	.0	.0	1.8	
	PCP	.0	.2	.0	.0	.1	.1	.0	.0	.0	.0	.5	
1/2<1	NO PCP	.5	.7	.5	.5	.2	.7	1.2	.4	.0	.0	4.6	
	TOT %	.9	.9	.5	.5	.3	.8	1.2	.4	.0	.0	5.0	
	PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
1<2	NO PCP	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.0	.2	.2	.1	.0	.0	.5	
	PCP	.5	.2	.0	.0	.0	.5	.4	.1	.0	.0	1.6	
2<5	NO PCP	.4	.0	.5	.2	.0	.3	.4	.5	.0	.2	2.5	
	TOT %	.9	.2	.5	.2	.0	.7	.8	.6	.0	.2	4.1	
	PCP	.2	.5	.5	3.1	1.9	4.0	2.1	1.4	.0	.0	13.7	
5<10	NO PCP	2.5	5.8	6.1	3.5	2.2	8.5	5.5	5.0	.0	.2	39.3	
	TOT %	2.7	6.2	6.6	6.6	4.1	12.5	7.6	6.4	.0	.2	53.0	
	PCP	.5	.2	.0	.2	.1	.1	.0	.0	.0	.2	1.4	
10+	NO PCP	4.0	5.9	2.0	1.4	2.1	6.3	7.8	3.8	.0	.9	34.2	
	TOT %	4.5	6.2	2.0	1.7	2.2	6.4	7.8	3.8	.0	1.1	35.6	
	TOT OBS												438
	TOT PCT	8.6	14.0	9.7	9.4	6.6	20.9	17.8	11.4	.0	1.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.0	.0	.2	.2	.0	.0	.0	.0	.0		.4	
	11-21	.0	.4	.0	.0	.0	.2	.2	.0	.0		.9	
	22+	.2	.0	.0	.2	.0	.0	.0	.1	.0		.4	
	TOT %	.2	.4	.2	.4	.0	.2	.2	.1	.0	.0	1.8	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.2	.0	.0	.1	.8	.3	.1	.0		1.6	
	11-21	.0	.2	.0	.0	.2	.0	.0	.0	.0		.4	
	22+	.4	.4	.4	.4	.0	.0	.8	.3	.0		2.9	
	TOT %	.4	.9	.4	.4	.3	.8	1.2	.4	.0	.0	4.9	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.2	.0	.2	.0	.0	.0		.4	
	22+	.0	.0	.0	.0	.0	.0	.2	.1	.0		.2	
	TOT %	.0	.0	.0	.2	.0	.2	.2	.1	.0	.0	.7	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
2<5	4-10	.2	.0	.4	.0	.0	.2	.2	.0	.0		1.1	
	11-21	.0	.2	.0	.2	.0	.5	.2	.0	.0		1.1	
	22+	.6	.0	.0	.0	.1	.3	.6	.6	.0		2.2	
	TOT %	.8	.2	.4	.2	.1	1.1	1.0	.6	.0	.2	4.7	
	0-3	.0	.0	.0	.2	.1	.2	.6	.2	.0	.2	1.6	
5<10	4-10	1.7	1.0	1.6	.7	2.1	2.9	.7	2.1	.0		12.7	
	11-21	.6	2.6	2.1	1.9	.9	6.1	2.9	1.3	.0		18.2	
	22+	.4	2.4	2.8	3.7	.9	3.0	3.8	2.8	.0		19.8	
	TOT %	2.6	6.1	6.4	6.4	4.0	12.2	7.9	6.4	.0	.2	52.2	
	0-3	.4	.9	.0	.0	.0	.9	.0	.4	.0	1.1	3.8	
10+	4-10	1.5	3.4	1.4	.7	.6	2.7	2.3	1.0	.0		13.6	
	11-21	1.7	1.7	.3	.2	1.0	2.1	2.3	1.3	.0		10.7	
	22+	.7	.0	.2	.7	.9	1.4	3.0	.9	.0		7.8	
	TOT %	4.3	6.0	1.9	1.6	2.4	7.1	7.6	3.7	.0	1.1	35.8	
	TOT OBS												450
	TOT PCT	8.4	13.6	9.4	9.4	6.9	21.5	18.1	11.2	.0	1.6	100.0	

MARCH

PERIOD: (PRIMARY) 1882-1977
(OVER-ALL) 1857-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.4	2.7	2.7	11.0	16.4	21.9	4.1	.0	1.4	.0	61.6	38.4	73
06&09	.0	.0	4.1	8.2	12.2	8.2	6.1	2.0	2.0	.0	42.9	57.1	49
12&15	4.7	.0	4.7	4.7	9.3	20.9	.0	2.3	2.3	.0	48.8	51.2	43
18&21	4.3	.0	2.1	6.4	23.4	12.8	4.3	2.1	2.1	.0	57.4	42.6	47
TOT	5	2	7	17	33	35	8	3	4	0	114	98	212
PCT	2.4	.9	3.3	8.0	15.6	16.5	3.8	1.4	1.9	.0	53.8	46.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.9	3.3	.9	5.3	35.1	52.6	114
06&09	2.3	4.5	.0	3.8	58.3	31.1	132
12&15	2.0	4.1	1.0	5.1	58.2	29.6	98
18&21	1.7	6.0	.9	4.3	57.3	29.9	117
TOT	8	23	3	21	241	165	461
PCT	1.7	5.0	.7	4.6	52.3	35.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.4	8.5	22.5	40.8	36.6	71
06&09	.0	4.3	19.6	30.4	50.0	46
12&15	7.0	11.6	18.6	30.2	51.2	43
18&21	4.3	6.4	17.0	40.4	42.6	47
TOT	6	16	41	75	91	207
PCT	2.9	7.7	19.8	36.2	44.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.6	.0	.0	.0	.0	.0	.0	.0	1	.6
60/64	.0	.0	.0	.6	2.3	.6	5.2	2.9	20	11.6
55/59	.0	.0	.6	1.9	4.1	8.7	19.2	16.8	90	52.3
50/54	.0	.0	1.2	.6	4.7	8.1	10.5	9.3	59	34.3
45/49	.0	.0	.0	.6	.0	.6	.0	.0	2	1.2
TOTAL	1	0	3	5	19	31	60	53	172	100.0
PCT	.6	.0	1.7	2.9	11.0	18.0	34.9	30.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.6	.0	.0	.0
1.7	1.9	1.2	.0	.6	.6	2.2	3.5	.0	.0
9.9	7.7	3.6	4.1	1.6	5.7	9.7	9.4	.0	.6
4.7	2.6	3.5	.7	2.3	8.3	8.4	2.6	.0	1.2
.0	.0	.0	.6	.0	.6	.0	.0	.0	.0
16.3	12.2	8.3	5.4	4.5	15.1	20.9	15.6	.0	1.7

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	70	63	56	50	47	43	56.1	147
06&09	70	64	60	55	51	49	49	54.9	155
12&15	70	63	60	54	48	49	48	54.2	115
18&21	64	61	58	54	49	48	47	53.6	144
TOT	73	64	61	54	50	48	43	54.7	561

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	2.1	4.2	16.7	20.8	33.3	22.9	80	48
06&09	.0	2.2	15.2	17.4	32.6	32.6	83	46
12&15	.0	5.0	10.0	15.0	32.5	37.5	83	40
18&21	.0	6.7	.0	17.8	42.2	33.3	85	45
TOT	1	8	19	32	63	56	83	179

MARCH

PERIOD: (PRIMARY) 1882-1977
(OVER-ALL) 1857-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.3	1	.0	.3
11/13	.0	.0	.0	.0	.3	.0	.0	1	.0	.3
9/10	.0	.0	.0	.0	.3	.3	.3	3	.0	.8
7/8	.0	.0	.0	1.0	.3	.0	.0	5	.3	1.0
6	.0	.0	.0	1.3	.8	.0	.0	8	.0	2.1
5	.0	.0	1.0	.8	1.3	.0	.0	12	.0	3.1
4	.0	.0	1.8	1.3	.8	.0	.0	15	.3	3.6
3	.0	.0	3.1	1.8	.5	.0	.0	21	.0	5.4
2	.0	.3	3.4	2.8	.0	.0	.0	25	.5	5.9
1	.0	1.0	5.4	3.1	.0	.0	.0	37	1.6	8.0
0	.0	3.6	7.0	3.9	1.0	.0	.0	60	2.1	13.4
-1	.0	7.5	7.2	1.6	.0	.0	.0	63	.5	15.8
-2	.3	5.7	7.2	2.6	.3	.0	.0	62	1.8	14.2
-3	.3	3.6	4.7	.3	.0	.0	.0	34	.3	8.5
-4	.3	2.8	1.6	.0	.0	.0	.0	18	.3	4.4
-5	.5	1.0	.8	.3	.0	.0	.0	10	.0	2.6
-6	.0	.5	.3	.5	.0	.0	.0	5	.3	1.0
-7/-8	.0	.8	.3	.0	.0	.0	.0	4	.0	1.0
-9/-10	.3	.0	.3	.0	.0	.0	.0	2	.0	.5
-11/-13	.0	.3	.0	.0	.0	.0	.0	1	.0	.3
TOTAL	6	105	170	82	21	1	2	387	30	357
PCT	1.6	27.1	43.9	21.2	5.4	.3	.5	100.0	7.8	92.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.5	.4	.0	.0	.0	2.5
1-2	.0	1.6	.4	.0	.0	.0	2.1
3-4	.0	1.0	.6	.0	.0	.0	1.6
5-6	.0	.0	2.1	.0	.0	.0	2.1
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	1.2	.4	.0	1.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.4	.0	.4	.0	.9
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.4	.0	.4
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.1	4.0	1.2	1.3	.0	11.2

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.4	2.1	.1	.0	.0	.0	2.2
1-2	2.4	4.3	1.3	.0	.0	.0	7.9
3-4	.0	1.3	2.4	.0	.0	.0	3.7
5-6	.0	.6	1.2	.0	.0	.0	1.8
7	.0	.6	.6	.0	.0	.0	1.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.4	8.8	5.7	.0	.0	.0	16.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.2	.0	.0	.0	.0	2.2
1-2	.0	.8	.4	.0	.0	.0	1.0
3-4	.0	1.0	.0	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	.4	.0	.0	.0	4.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.2	.0	.0	.0	.0	1.2
3-4	.0	.6	.0	.0	.0	.0	.6
5-6	.0	.0	.6	.6	.0	.0	1.2
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.6	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.8	.6	1.2	.0	.0	3.5

PERIOD: (OVER-ALL) 1963-1977

MARCH

AREA 0031 FOVEAUX STRAIT
46.0S 168.0E

TABLE 1e (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.6	1.6	.0	.0	.0	.0	2.4
1-2	.0	1.5	.0	.0	.0	.0	1.5	1.8	1.6	1.2	.0	.0	.0	4.6
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.9	2.9	1.3	.0	.0	6.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.6	.0	.0	.0	2.4
7	.0	.0	.0	.6	.0	.0	.6	.0	.0	1.3	1.2	.1	.0	2.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.7	.0	.0	1.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.6
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.5	.0	.6	.0	.0	2.1	2.4	7.1	7.5	3.2	.7	.0	20.9

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.6	2.1	.6	.0	.0	.0	3.2	
1-2	.0	3.4	.4	.0	.0	.0	4.0	.6	1.8	.7	.0	.0	.0	3.1	
3-4	.0	.4	1.7	1.0	.0	.0	2.6	.0	.1	.6	.0	.0	.0	.7	
5-6	.0	.0	2.1	.6	.0	.0	2.6	.0	.0	1.8	1.2	.0	.0	2.9	
7	.0	.0	1.4	1.2	.4	.0	3.2	.0	.0	.0	1.2	.4	1.2	2.9	
8-9	.0	.6	.9	.4	1.0	.0	2.9	.0	.0	.6	.6	.3	.0	1.5	
10-11	.0	.6	.0	.6	1.5	.0	2.6	.0	.0	.0	.0	.3	.0	.3	
12	.0	.0	.0	.6	.0	.0	.6	.0	.0	.0	.0	.0	.6	.6	
13-16	.0	.0	.0	1.0	.0	.0	1.0	.0	.0	.0	.1	.7	.0	.9	
17-19	.0	.0	.0	.6	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	
23-25	.0	.0	.0	.0	.6	.0	.6	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.6	.6	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	5.4	6.3	6.0	3.5	.6	21.9	1.2	4.0	4.3	3.1	2.1	1.8	16.3	97.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.7	9.9	1.2	.0	.0	.0	15.8	
1-2	5.3	15.8	4.7	.0	.0	.0	25.7	
3-4	.0	6.4	7.6	2.3	.0	.0	16.4	
5-6	.0	2.3	8.2	2.3	.0	.0	12.9	
7	.0	.6	3.5	4.1	1.2	1.2	10.5	
8-9	.0	.6	2.3	3.5	1.8	.0	8.2	
10-11	.0	.6	.6	.6	1.8	.0	3.5	
12	.0	.0	.0	.6	.0	.6	1.2	
13-16	.0	.0	.6	1.2	1.2	.0	2.9	
17-19	.0	.0	.0	.6	.6	.0	1.2	
20-22	.0	.0	.0	.0	.6	.0	.6	
23-25	.0	.0	.0	.0	.6	.0	.6	
26-32	.0	.0	.0	.0	.0	.6	.6	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								171
TOT PCT	9.9	36.3	28.7	15.2	7.6	2.3	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	6.6	6.6	3.5	5.6	3.5	2.0	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	5
6-7	.0	2.0	3.5	5.6	5.6	2.5	3.0	1.5	1.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	53	7
8-9	.0	.5	3.0	2.5	2.0	3.5	3.0	1.0	2.0	1.0	.5	.0	1.0	.0	.0	.0	.0	.0	.0	40	9
10-11	.0	.0	.0	.5	.5	2.0	1.0	.0	1.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	13	11
12-13	.0	.0	.5	1.0	.0	1.0	1.0	.0	2.0	.0	.0	.5	1.0	.0	.0	.0	.0	.0	.0	14	13
>13	.0	.0	.0	1.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	6
INDET	3.0	2.0	1.5	1.5	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	2
TOTAL	6	22	30	32	27	26	21	6	14	6	3	1	4	0	0	0	0	0	0	198	7
PCT	3.0	11.1	15.2	16.2	13.6	13.1	10.6	3.0	7.1	3.0	1.5	.5	2.0	.0	.0	.0	.0	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1909-1977
(OVER-ALL) 1857-1977

AREA 0031 FOVEAUX STRAIT
46.0S 168.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	4.7	3.1	.0	.0	.0	.0	.0	7.8	5.4	.0	10.9	.0	2.3	.0		73.6
NE	4.4	4.4	4.4	.0	.0	.0	.0	13.3	4.4	.0	4.4	.0	.0	.0		77.8
E	.0	.0	.0	.0	.0	.0	.0	.0	9.3	.0	.0	.0	.0	.0		90.7
SE	.0	.0	.0	.0	.0	.0	.0	.0	26.7	.0	13.3	.0	.0	.0		60.0
S	10.2	9.5	2.9	.0	.0	.0	.0	22.6	9.8	.0	2.9	.0	.0	.0		68.6
SW	5.2	9.4	1.7	.0	.0	.0	8.6	24.9	1.7	.0	.9	.0	.0	.0		72.5
W	6.8	15.8	2.6	.0	.0	.0	1.3	26.4	4.5	.0	2.6	.0	.0	.0		66.6
NW	18.4	.0	6.3	.0	.0	.0	.0	24.7	9.7	2.1	7.4	.0	.5	.0		63.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		100.0
TOT PCT	7.7	7.7	2.7	.0	.0	.0	2.0	20.2	4.4	.3	4.0	.0	.3	.0		71.0
TOT OBS:	297															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	7.0	2.8	4.2	.0	.0	.0	.0	14.1	4.2	.0	2.8	.0	1.4	.0		77.5
06&09	8.0	8.0	3.4	.0	.0	.0	2.3	21.8	4.6	.0	3.4	.0	.0	.0		70.1
12&15	3.2	11.3	1.6	.0	.0	.0	1.6	17.7	3.2	.0	3.2	.0	1.6	.0		74.2
18&21	10.5	9.3	1.2	.0	.0	.0	3.5	24.4	4.7	1.2	5.8	.0	.0	.0		65.1
TOT PCT	7.5	7.8	2.6	.0	.0	.0	2.0	19.9	4.2	.3	3.9	.0	.7	.0		71.2
TOT OBS:	306															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	4.1	4.6	2.4	.9	.2		12.8	16.5	14.9	.0	11.9	10.0	12.7	.0	11.9	14.7
NE	.1	4.9	3.5	.2	.2	.1		9.1	12.0	12.9	50.0	8.8	7.5	10.1	12.5	6.7	1.9
E	.2	1.4	1.1	.2	.0	.0		2.9	11.8	2.7	.0	4.5	.0	1.0	37.5	4.0	1.3
SE	.1	1.1	1.4	.2	.2	.0		3.0	14.4	2.2	.0	2.3	10.0	3.2	.0	.9	5.8
S	.2	4.1	3.9	3.7	1.4	.0		13.4	18.5	7.9	.0	11.4	17.5	14.6	.0	15.5	23.7
SW	.0	3.2	6.6	5.3	2.3	.0		17.3	21.3	17.6	25.0	21.0	10.8	16.9	.0	14.3	21.2
W	.0	4.9	7.1	7.5	4.5	.5		24.5	22.9	24.3	25.0	23.6	21.7	26.6	50.0	27.4	17.9
NW	.5	3.1	3.2	4.8	2.1	.0		13.7	20.6	15.6	.0	10.8	15.8	9.7	.0	18.0	13.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.3							3.3	.0	2.0	.0	3.7	6.7	5.2	.0	1.2	.3
TOT OBS	21	113	132	103	49	3	421		18.6	101	2	88	30	77	2	82	39
TOT PCT	5.0	26.9	31.4	24.5	11.6	.7		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.7	4.8	2.9	2.3	.2		12.8	16.5	14.6	11.4	12.3	12.8
NE	1.4	5.5	1.8	.2	.1		9.1	12.0	13.6	8.5	10.1	5.2
E	.4	1.8	.6	.0	.0		2.9	11.8	2.7	3.4	1.9	3.1
SE	.5	2.0	.0	.2	.2		3.0	14.4	2.2	4.2	3.2	2.5
S	2.3	4.2	3.7	2.8	.5		13.4	18.5	7.8	12.9	14.2	18.2
SW	1.2	4.3	6.5	4.5	1.0		17.3	21.3	17.7	18.4	16.5	16.5
W	3.1	3.3	9.3	6.5	2.3		24.5	22.9	24.3	23.1	27.2	24.4
NW	1.7	3.3	4.9	3.2	.5		13.7	20.6	15.3	12.1	9.5	16.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.3						3.3	.0	1.9	9.9	3.1	.8
TOT OBS	70	123	125	83	20	421		18.6	103	118	79	121
TOT PCT	16.6	29.2	29.7	19.7	4.8		100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1909-1977
(OVER-ALL) 1857-1977

AREA 0031 FOVEAUX STRAIT
46.8S 168.0E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00603	1.9	1.0	36.9	27.2	18.4	14.6	.0	17.4	100.0	103
06609	5.9	.0	24.6	31.4	28.0	8.5	1.7	18.8	100.0	118
12615	5.1	2.5	24.1	38.0	22.8	7.6	.0	17.6	100.0	79
18621	.8	3.3	22.3	30.6	27.3	14.9	.8	20.0	100.0	121
TOT	14	7	113	132	103	49	3	18.6		421
PCT	3.3	1.7	26.8	31.4	24.5	11.6	.7		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.7	1.2	2.7	6.1		5.6
NE	.9	2.2	.7	3.9		5.6
E	.4	.7	1.0	2.6		6.2
SE	.0	.0	.0	.7		8.0
S	.6	1.0	1.6	5.6		6.8
SW	1.7	3.0	9.8	3.8		5.6
W	3.0	2.3	8.7	11.9		6.2
NW	3.3	1.2	3.2	9.5		6.1
VAR	.0	.0	.0	.0		.0
CALM	1.2	1.7	.6	1.2		3.8
TOT OBS	24	23	49	77	173	5.9
TOT PCT	13.9	13.3	28.3	44.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.6	.0	.4	2.0	1.4	2.0	.4	.0	.0	.0	5.8	
.6	.0	.6	.3	.6	1.2	.6	.0	.0	.0	3.8	
.6	.0	.0	.9	.6	.6	.0	.0	.0	.0	2.2	
.0	.0	.0	.1	.6	.0	.0	.0	.0	.0	.0	
.0	.0	.0	4.8	1.0	1.4	.0	.0	.0	.0	1.6	
.0	.0	.6	1.6	1.0	9.8	.6	.0	.0	.0	4.8	
2.3	.0	.4	1.6	5.8	6.9	1.2	.0	.6	.6	5.9	
1.2	.0	.3	3.2	4.0	1.7	.7	.0	.0	.0	6.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	1.2	.6	.0	.0	.0	.0	2.9	
9	0	4	25	28	42	6	0	1	1	57	173
5.2	.0	2.3	14.5	16.2	24.3	3.5	.0	.6	.6	32.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1
= OR >5000	1.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2
= OR >3500	5.0	5.6	5.6	5.6	5.6	5.6	5.6	5.6
= OR >2000	21.1	27.8	28.9	28.9	28.9	28.9	28.9	28.9
= OR >1000	32.8	41.7	43.9	43.9	45.6	45.6	45.6	45.6
= OR >400	37.8	52.2	57.2	57.8	59.4	59.4	59.4	59.4
= OR >300	38.3	53.3	59.4	60.0	61.7	61.7	61.7	61.7
= OR >150	38.3	53.3	59.4	60.0	61.7	61.7	61.7	61.7
= OR > 0	39.4	55.6	62.8	63.9	65.6	65.6	67.2	67.2
TOTAL	71	100	113	115	118	118	121	121

TOTAL NUMBER OF OBS: 180 PCT FREQ NH <5/8: 32.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
6.9	4.7	4.7	8.9	7.3	8.9	6.8	13.1	34.6	4.7	191

APRIL

PERIOD: (PRIMARY) 1909-1977
(OVER-ALL) 1857-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.3	.0	.0	.0	.0	.7	.4	.0	.0	1.7	
	TOT %	.2	.3	.0	.0	.0	.0	.7	.5	.0	.0	1.7	
1/2<1	PCP	.0	.0	.0	.0	.4	.3	.6	.7	.0	.0	2.0	
	NO PCP	.7	.0	.0	.0	.3	.0	.0	.3	.0	.0	1.3	
	TOT %	.7	.0	.0	.0	.8	.3	.6	1.0	.0	.0	3.4	
1<2	PCP	.3	.0	.0	.0	.3	.7	1.3	.0	.0	.0	2.7	
	NO PCP	.6	.0	.0	.0	.0	.0	.0	.1	.0	.0	.7	
	TOT %	.9	.0	.0	.0	.9	.7	1.3	.1	.0	.0	3.4	
2<5	PCP	.2	.0	.0	.0	.7	.3	1.3	.9	.0	.0	3.4	
	NO PCP	.6	.3	.3	.0	.0	.7	.6	.5	.0	.0	3.0	
	TOT %	.8	.3	.3	.0	.7	1.0	1.9	1.4	.0	.0	6.4	
5<10	PCP	.3	1.0	.0	.0	1.2	2.9	2.4	2.0	.0	.0	9.8	
	NO PCP	1.7	1.5	.8	1.2	4.0	5.6	6.8	3.4	.0	.7	25.6	
	TOT %	2.0	2.5	.8	1.2	5.2	8.4	9.2	5.4	.0	.7	35.4	
10+	PCP	.0	.0	.0	.0	.0	.7	1.3	.3	.0	.0	2.4	
	NO PCP	6.3	4.4	2.5	.1	4.5	8.5	11.2	7.2	.0	2.7	47.5	
	TOT %	6.3	4.4	2.5	.1	4.5	9.2	12.5	7.4	.0	2.7	49.8	
	TOT OBS												297
	TOT PCT	10.9	7.6	3.6	1.3	11.5	19.6	26.2	16.0	.0	3.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.3	.0	.0	.0	.0	.6	.2	.0		1.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.3	.0		.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.3	.0	.0	.0	.0	.6	.5	.0	.0	1.6	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.3	.0	.0	.3	.0		.6	
	11-21	.3	.0	.0	.0	.2	.1	.3	.3	.0		1.3	
	22+	.3	.0	.0	.0	.2	.2	.2	.3	.0		1.3	
	TOT %	.6	.0	.0	.0	.7	.3	.6	1.0	.0	.0	3.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.0	.0	.0	.0	.0	.0	.0	.0		.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.6	.0	.0	.0	.3	.6	1.3	.1	.0		2.9	
	TOT %	.9	.0	.0	.0	.3	.6	1.3	.1	.0	.0	3.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	1.0	.3	.0	.0	.2	.5	.2	.1	.0		2.3	
	11-21	.2	.0	.3	.0	.0	.0	.2	.2	.0		1.0	
	22+	.2	.0	.0	.0	.6	.6	1.3	1.1	.0		3.9	
	TOT %	1.4	.3	.3	.0	.8	1.1	1.8	1.4	.0	.0	7.1	
5<10	0-3	.6	.0	.0	.0	.0	.0	.0	.0	.0	1.0	1.6	
	4-10	.5	.5	.0	.3	.5	.5	.0	1.3	.0		3.6	
	11-21	.2	1.5	.5	.8	2.1	4.4	3.7	.3	.0		13.6	
	22+	.9	.4	.2	.0	2.4	3.2	5.1	4.2	.0		16.6	
	TOT %	2.3	2.4	.7	1.1	5.0	8.1	8.8	5.8	.0	1.0	35.4	
10+	0-3	.2	.2	.0	.0	.0	.0	.0	.6	.0	2.9	3.9	
	4-10	2.6	3.2	1.8	.1	2.0	1.9	4.1	2.1	.0		17.9	
	11-21	3.0	1.1	.6	.0	1.4	3.2	3.7	2.6	.0		15.6	
	22+	.6	.0	.0	.0	1.0	3.7	4.3	2.4	.0		12.0	
	TOT %	6.4	4.4	2.4	.1	4.4	8.8	12.1	7.8	.0	2.9	49.4	
	TOT OBS												308
	TOT PCT	11.8	7.5	3.5	1.2	11.3	19.1	25.2	16.6	.0	3.9	100.0	

APRIL

PERIOD: (PRIMARY) 1909-1977
(OVER-ALL) 1857-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	2.0	.0	2.0	18.0	18.0	20.0	4.0	2.0	2.0	2.0	70.0	30.0	50
06&09	5.5	.0	3.6	7.3	9.1	34.5	5.5	.0	.0	.0	65.5	34.5	55
12&15	8.1	.0	.0	13.5	18.9	21.6	.0	2.7	.0	.0	64.9	35.1	37
18&21	7.5	.0	2.5	17.5	22.5	12.5	2.5	.0	.0	.0	65.0	35.0	40
TOT	10	0	4	25	30	42	6	2	1	1	121	61	182
PCT	5.5	.0	2.2	13.7	16.5	23.1	3.3	1.1	.5	.5	66.5	33.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	4.1	4.1	5.5	27.4	58.9	73
06&09	1.1	3.3	5.6	7.8	34.4	47.8	90
12&15	1.5	1.5	.0	9.1	37.9	50.0	66
18&21	3.4	3.4	2.2	5.6	39.3	46.1	89
TOT	5	10	10	22	111	160	318
PCT	1.6	3.1	3.1	6.9	34.9	50.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	2.0	4.0	28.0	42.0	30.0	50
06&09	5.5	10.9	20.0	47.3	32.7	55
12&15	8.1	8.1	24.3	40.5	35.1	37
18&21	7.9	15.8	34.2	34.2	31.6	38
TOT	10	17	47	75	58	180
PCT	5.6	9.4	26.1	41.7	32.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.0	.0	.6	.0	1	.6
60/64	.0	.0	.0	.0	.6	1.9	.6	1.9	8	5.0
55/59	.0	.0	.0	.6	.6	8.7	14.9	6.8	51	31.7
50/54	.0	.0	.0	.0	5.0	11.8	16.1	19.9	85	52.8
45/49	.0	.0	.0	.0	.0	3.1	4.3	2.5	16	9.9
TOTAL	0	0	0	1	10	41	59	50	161	100.0
PCT	.0	.0	.0	.6	6.2	25.5	36.6	31.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.0	.0	.6
1.2	.6	.0	.0	.0	.0	1.7	1.4	.0	.0
4.2	1.6	1.2	.6	.9	3.1	11.8	6.4	.0	1.9
6.5	6.7	3.3	.6	6.8	10.1	13.8	3.7	.0	1.2
.6	.8	1.7	.0	1.6	.3	1.9	2.5	.0	.6
12.6	9.6	6.2	1.2	9.3	13.5	29.2	14.0	.0	4.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	71	62	61	54	47	45	45	54.2	99
06&09	68	62	61	53	48	44	44	53.2	110
12&15	65	64	59	52	45	43	43	51.8	81
18&21	67	63	59	52	46	44	44	52.6	120
TOT	71	64	59	53	46	44	43	53.0	410

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	.0	17.5	27.5	30.0	25.0	82	40
06&09	.0	2.3	2.3	25.0	31.8	38.6	86	44
12&15	.0	.0	5.3	15.8	42.1	36.8	87	38
18&21	.0	.0	.0	31.1	42.2	26.7	84	45
TOT	0	1	10	42	61	53	85	167

APRIL

PERIOD: (PRIMARY) 1909-1977
(OVER-ALL) 1957-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	1.2	.8	5	.0	1.9
9/10	.0	.0	.0	.0	2.7	.0	7	.0	2.7
7/8	.0	.0	.0	1.9	.4	.8	8	.0	3.1
6	.0	.0	.0	.4	.4	.0	2	.0	.8
5	.0	.0	.0	1.5	1.2	.4	8	.4	2.7
4	.0	.0	4.2	1.2	.0	.8	16	.4	5.8
3	.0	.0	.8	1.9	2.3	.8	15	.0	5.8
2	.0	.0	6.6	2.3	1.5	.4	28	1.2	9.7
1	.0	.0	.8	4.6	1.2	.0	17	.8	5.8
0	.0	2.3	2.7	2.7	2.3	.0	26	.4	9.7
-1	.0	.0	3.1	4.6	1.5	.4	25	.8	8.9
-2	.0	.4	4.6	2.3	.0	.0	19	.0	7.3
-3	.0	1.5	7.7	.8	.4	.0	27	.4	10.0
-4	.4	1.9	3.5	1.2	.0	.0	18	.0	6.9
-5	.0	.8	.4	1.2	.0	.0	6	.0	2.3
-6	.0	2.7	1.2	.4	.0	.0	11	.0	4.2
-7/-8	.0	3.1	2.7	.8	.0	.0	17	.0	6.6
-9/-10	.4	1.2	.0	.0	.0	.0	4	.0	1.5
TOTAL	2	36	99	72	39	11	259	11	248
PCT	.8	13.9	38.2	27.8	15.1	4.2	100.0	4.2	95.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	1.9	.0	.0	.0	.0	1.9
3-4	.0	.0	3.0	.0	.0	.0	3.0
5-6	.0	.6	2.4	1.3	.0	.0	4.2
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.6	.5	.5	.0	1.6
10-11	.0	.0	.0	.6	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.1	6.0	2.4	.5	.0	11.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.0	.6	.0	.0	.0	2.7
1-2	.0	2.2	.6	.0	.0	.0	2.8
3-4	.0	.0	1.1	.0	.0	.0	1.1
5-6	.0	.6	.6	.0	.0	.0	1.3
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.6	.0	.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.9	3.0	.2	.6	.0	8.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.7	.0	.0	.0	.0	1.7
1-2	.0	.9	.0	.0	.0	.0	.9
3-4	.0	.0	.9	.0	.0	.0	.9
5-6	.0	.0	1.3	.0	.0	.0	1.3
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.5	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.7	2.2	.5	.0	.0	5.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.6	.0	.0	.0	.0	.6
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.6	.0	.0	.0	.0	.6

PERIOD: (OVER-ALL) 1963-1977

APRIL

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.3	.0	.0	.0	.0	1.3
1-2	.0	1.9	1.1	.0	.0	.0	3.0
3-4	.0	.5	1.6	.0	.0	.0	2.0
5-6	.0	.0	.0	1.1	.0	.0	1.1
7	.0	.0	.5	.6	.0	.0	1.1
8-9	.0	.0	.0	.6	.0	.0	.6
10-11	.0	.0	.0	.0	1.3	.0	1.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.5	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.6	3.1	2.4	1.7	.0	10.8

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	2.0	.2	.0	.0	.0	2.2
3-4	.0	.8	3.5	.0	.0	.0	4.2
5-6	.0	.0	.8	1.4	.0	.0	2.2
7	.0	.0	2.7	.6	.0	.0	3.3
8-9	.0	.0	.0	.6	.0	.0	.6
10-11	.0	.0	.6	3.3	.4	.0	5.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.1	7.7	6.0	.8	.0	18.6

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	3.6	.0	.0	.0	.0	3.6
1-2	.0	1.7	.0	.0	.0	.0	1.7
3-4	.0	1.9	1.9	.6	.0	.6	4.4
5-6	.0	.0	2.2	1.3	.0	.0	3.5
7	.0	.0	3.0	.6	.0	.0	3.6
8-9	.0	.6	.6	.6	1.1	.0	3.0
10-11	.0	.0	.0	.5	2.4	.0	2.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	1.3	.6	.0	1.9
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.9	7.7	4.9	4.1	.0	24.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.8	.0	.0	.0	.0	.8	
1-2	1.3	.6	.6	.0	.0	.0	2.5	
3-4	.0	.6	1.9	.0	.0	.0	2.5	
5-6	.0	.6	.3	1.9	.6	.0	3.5	
7	.0	.0	.2	1.9	.6	.0	2.7	
8-9	.0	.0	.0	.2	.3	.0	.5	
10-11	.0	.0	.6	.0	.8	.0	1.4	
12	.0	.0	.0	.6	.0	.0	.6	
13-16	.0	.0	.0	.6	.0	.0	.6	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.3	2.7	3.6	5.2	2.4	.0	15.1	95.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.4	10.7	.6	.0	.0	.0	15.7	
1-2	1.3	11.9	2.5	.0	.0	.0	15.7	
3-4	.0	3.8	13.8	.6	.0	.0	18.2	
5-6	.0	1.9	7.5	6.9	.6	.0	17.0	
7	.0	.0	6.3	3.8	.6	.0	10.7	
8-9	.0	.6	1.3	2.5	1.9	.0	6.3	
10-11	.0	.6	1.3	5.0	5.7	.0	12.6	
12	.0	.0	.0	.6	.0	.0	.6	
13-16	.0	.0	.0	1.9	1.3	.0	3.1	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								159
TOT PCT	5.7	29.6	33.3	21.4	10.1	.0	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	2.9	4.0	5.1	2.9	1.7	.6	.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	5
6-7	.0	.0	2.3	1.1	5.1	5.1	6.3	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	8
8-9	.0	.0	1.1	2.9	3.4	4.0	.6	1.7	4.6	1.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	36	10
10-11	.0	.0	.0	.6	2.3	.0	1.7	.0	1.7	4.6	.6	1.7	.0	.0	.0	.0	.0	.0	.0	23	14
12-13	.0	.0	.6	.0	.0	.6	.0	.0	.6	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	5	13
>13	.0	.0	.0	1.1	1.7	2.3	3.4	.0	3.4	.0	.6	.0	.6	.0	.0	.0	.0	.0	.0	23	11
INDET	2.3	.6	2.3	.0	2.9	.6	.6	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	9
TOTAL	4	6	18	19	92	25	23	7	21	11	5	3	1	0	0	0	0	0	0	179	
PCT	2.3	3.4	10.3	10.9	18.3	14.3	13.1	4.0	12.0	6.3	2.9	1.7	.6	.0	.0	.0	.0	.0	.0	100.0	

MAY

PERIOD: (PRIMARY) 1884-1977
(OVER-ALL) 1857-1977

AREA 0031 FOVEAUX STRAIT
46.8S 168.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	12.4	3.7	1.2	.0	.0	.0	.0	17.4	.0	2.5	3.7	.0	.0		.0	76.4
NE	.0	1.2	1.2	.0	.0	.0	.0	2.4	7.1	.0	11.8	.0	.0		.0	78.7
E	.0	.0	5.6	.0	.0	.0	.0	5.6	5.6	.0	29.6	.0	.0		.0	59.2
SE	14.8	.0	3.7	.0	.0	.0	.0	18.5	.0	.0	18.5	.0	.0		.0	63.0
S	3.1	15.6	3.9	.0	.0	.0	.0	22.7	.0	.0	3.1	.0	.0		.0	74.2
SW	.5	6.9	6.9	.0	.0	.0	18.8	33.2	5.9	1.0	5.0	.0	.0		.0	55.9
W	4.8	13.0	11.9	.0	.0	.0	.7	29.0	3.0	1.5	10.4	.0	.0		.0	57.6
NW	5.3	14.3	4.2	.0	.0	.0	.0	23.8	2.1	1.1	3.2	.0	.0		.0	70.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0		.0	80.0
TOT PCT	4.2	8.4	5.5	.0	.0	.0	3.2	21.0	3.2	1.0	8.4	.0	.0		.0	67.0
TOT OBS:	309															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.9	10.3	1.7	.0	.0	.0	3.4	22.4	1.7	.0	6.9	.0	.0		.0	69.0
06&09	4.9	8.7	1.9	.0	.0	.0	1.9	16.5	4.9	1.0	8.7	.0	.0		.0	69.9
12&15	1.5	7.5	10.4	.0	.0	.0	3.0	22.4	4.5	.0	3.0	.0	.0		.0	70.1
18&21	3.4	6.8	8.0	.0	.0	.0	4.5	22.7	1.1	2.3	12.5	.0	.0		.0	62.5
TOT PCT	4.1	8.2	5.4	.0	.0	.0	3.2	20.6	3.2	.9	8.2	.0	.0		.0	67.7
TOT OBS:	316															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)										HOUR (GMT)						
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	2.7	7.1	1.4	.5	.5		12.8	16.9	13.9	.0	17.0	13.9	5.4	.0	12.7	17.5
NE	.0	4.4	6.1	1.5	.0	.0		11.9	13.7	13.2	.0	13.9	11.1	11.7	.0	9.2	11.8
E	.5	.7	2.9	1.4	.0	.0		5.9	16.8	4.5	.0	10.8	5.6	2.5	.0	3.1	11.8
SE	.0	1.1	.5	.3	.1	.0		2.0	14.1	2.1	.0	.6	2.8	2.8	.0	2.4	1.5
S	.0	4.6	2.1	2.3	1.5	.0		10.4	16.9	16.0	.0	5.9	12.5	9.5	.0	8.9	13.2
SW	.5	3.0	6.3	4.7	1.1	1.5		17.0	22.4	16.0	.0	15.4	18.8	21.2	.0	17.8	10.3
W	.3	1.2	12.3	4.9	3.6	.9		23.2	22.7	19.4	.0	24.7	20.1	31.6	.0	20.5	17.6
NW	.0	3.1	5.9	3.4	2.3	.8		15.4	21.5	13.5	100.0	10.5	15.3	12.7	.0	24.0	16.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.3							1.3	.0	1.4	.0	1.2	.0	2.5	.0	1.4	.0
TOT OBS	12	78	162	76	34	14	376		19.2	72	1	81	36	79	0	73	34
TOT PCT	3.2	20.7	43.1	20.2	9.0	3.7		100.0		100.0	100.0	100.0	100.0	100.0	.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.5	5.5	4.7	.7	.5		12.8	16.9	13.7	16.0	5.4	14.3
NE	2.1	5.3	4.2	.3	.0		11.9	13.7	13.0	13.0	11.7	10.0
E	.5	2.1	2.8	.5	.0		5.9	16.8	4.5	9.2	2.5	5.8
SE	.3	1.1	.3	.3	.0		2.0	14.1	2.1	1.3	2.8	2.1
S	2.5	3.4	2.3	2.3	.0		10.4	16.9	15.8	7.9	9.5	10.3
SW	1.5	4.4	8.6	2.6	.0		17.0	22.4	15.8	16.5	21.2	15.4
W	1.1	4.9	10.5	5.4	1.3		23.2	22.7	19.2	23.3	31.6	19.6
NW	1.5	5.5	4.1	2.6	1.7		15.4	21.5	14.7	12.0	12.7	21.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.3						1.3	.0	1.4	.9	2.5	.9
TOT OBS	46	121	133	55	21	376		19.2	73	117	79	107
TOT PCT	12.2	32.2	35.4	14.6	5.6		100.0		100.0	100.0	100.0	100.0

MAY

PERIOD: (PRIMARY) 1884-1977
(OVER-ALL) 1857-1977

AREA 0031 FOVEAUX STRAIT
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.4	.0	20.5	37.0	23.3	13.7	4.1	20.9	100.0	73
06&09	.9	3.4	17.9	48.7	17.9	8.5	2.6	18.4	100.0	117
12&15	2.5	.0	26.6	49.4	13.9	5.1	2.5	16.9	100.0	79
18&21	.9	2.8	19.6	36.4	25.2	9.3	5.6	20.6	100.0	107
TOT	5	7	78	142	76	34	14	19.2		376
PCT	1.3	1.9	20.7	43.1	20.2	9.0	3.7		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	1.9	4.7	4.7		6.8
NE	2.5	1.1	7.0	4.2		5.7
E	.0	.0	1.1	2.3		7.6
SE	.0	.0	.8	1.5		7.2
S	.0	2.5	4.9	2.3		5.7
SW	1.9	3.8	7.8	6.8		5.9
W	2.3	3.0	11.4	9.7		6.1
NW	.0	.0	3.8	5.7		7.4
VAR	.0	.0	.0	.0		.0
CALM	.0	.8	.8	.8		6.3
TOT OBS	8	15	50	45	118	6.2
TOT PCT	6.8	12.7	42.4	38.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.8	1.5	2.1	1.7	.8	.0	.0	.0	3.8	
NE	.0	.0	.0	2.5	2.8	3.4	1.1	.0	.0	.0	5.1	
E	.8	.0	.0	.8	.6	.0	.6	.0	.0	.0	.4	
SE	1.1	.0	.0	.2	.2	.0	.0	.0	.0	.0	.8	
S	.6	.0	.0	1.9	.8	.6	1.5	.0	.8	.0	3.4	
SW	2.8	.8	.2	2.1	2.3	4.4	.2	.0	.0	.8	6.6	
W	2.3	.0	1.5	4.7	6.8	3.4	.8	1.7	.0	.0	5.3	
NW	.0	.8	.0	4.9	2.1	.8	.0	.0	.0	.0	.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.8	.0	.0	.0	.0	.8	.0	.0	.0	.0	.8	
TOT OBS	10	2	3	22	21	18	6	2	1	1	32	118
TOT PCT	8.5	1.7	2.5	19.6	17.8	15.3	5.1	1.7	.8	.8	27.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
* OR >5000	2.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3
* OR >3500	6.7	10.0	10.0	10.0	10.0	10.0	10.0	10.0
* OR >2000	16.7	23.3	25.0	25.0	25.0	25.0	25.0	25.0
* OR >1000	30.0	40.0	42.5	42.5	42.5	42.5	42.5	42.5
* OR >600	39.2	55.8	59.2	60.8	60.8	60.8	60.8	60.8
* OR >300	40.0	57.5	60.8	62.5	62.5	62.5	62.5	62.5
* OR >150	40.0	58.3	62.5	64.2	64.2	64.2	64.2	64.2
* OR > 0	40.8	59.2	69.2	70.8	70.8	71.7	72.5	72.5
TOTAL	49	71	83	85	85	86	87	87

TOTAL NUMBER OF OBS: 120 PCT FREQ NH <5/8: 27.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
2.3	4.7	6.2	7.8	6.2	7.0	18.6	12.4	27.1	7.8	129

MAY

PERIOD: (PRIMARY) 1884-1977
(OVER-ALL) 1857-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	NO PCP	.3	1.1	1.1	.3	.0	.3	.0	.0	.0	.0	3.2	
	TOT %	.6	1.1	1.1	.3	.0	.3	.0	.0	.0	.0	3.6	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
	NO PCP	.2	.5	.3	.0	.3	.5	1.8	.3	.0	.0	3.9	
	TOT %	.2	.5	.3	.0	.3	.5	1.8	.6	.0	.0	4.2	
1<2	PCP	.3	.0	.0	.0	.0	.0	.3	.3	.0	.0	1.0	
	NO PCP	.0	.0	.2	.1	.0	.0	.3	.0	.0	.0	.6	
	TOT %	.3	.0	.2	.1	.0	.0	.6	.3	.0	.0	1.6	
2<5	PCP	.3	.0	.3	.1	.2	.4	1.2	.0	.0	.0	2.6	
	NO PCP	.0	.2	.2	.0	.0	.4	.9	.6	.0	.3	2.6	
	TOT %	.3	.2	.5	.1	.2	.8	2.1	.6	.0	.3	5.2	
5<10	PCP	.6	.3	.0	.3	1.8	4.4	4.4	3.0	.0	.0	14.9	
	NO PCP	5.9	6.1	2.3	.7	4.9	3.8	7.0	7.2	.0	1.0	38.8	
	TOT %	6.6	6.4	2.3	1.1	6.6	8.2	11.4	10.2	.0	1.0	53.7	
10+	PCP	.6	.0	.0	.0	.3	.6	.3	.0	.0	.0	1.9	
	NO PCP	4.4	5.5	1.2	.6	2.8	5.0	5.5	3.5	.0	.3	29.8	
	TOT %	5.0	5.5	1.2	.6	3.2	6.6	5.8	3.5	.0	.3	31.7	
TOT OBS													309
TOT PCT		13.0	13.7	5.7	2.2	10.4	16.3	21.8	15.3	.0	1.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.6	
	4-10	.2	.5	.0	.3	.0	.0	.0	.0	.0		1.0	
	11-21	.0	.5	.5	.0	.0	.3	.0	.0	.0		1.3	
	22+	.5	.2	.0	.0	.0	.0	.0	.0	.0		.6	
	TOT %	.6	1.1	1.1	.3	.0	.3	.0	.0	.0	.0	3.6	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.3	.0	.0	.3	.3	.0	.3	.0		1.3	
	11-21	.2	.2	.3	.0	.0	.0	1.3	.3	.0		2.3	
	22+	.0	.0	.0	.0	.0	.2	.5	.0	.0		.6	
	TOT %	.2	.5	.3	.0	.3	.5	1.8	.6	.0	.0	4.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.2	.1	.0	.0	.3	.0	.0		.6	
	22+	.3	.0	.0	.0	.0	.0	.3	.3	.0		1.0	
	TOT %	.3	.0	.2	.1	.0	.0	.6	.3	.0	.0	1.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	
	4-10	.0	.0	.0	.0	.0	.1	.6	.0	.0		.6	
	11-21	.3	.2	.2	.1	.2	.4	.6	.3	.0		2.3	
	22+	.0	.0	.3	.0	.0	.3	1.0	.3	.0		1.9	
	TOT %	.3	.2	.5	.1	.2	.8	2.1	.6	.0	.3	5.2	
5<10	0-3	.3	.0	.0	.0	.0	.0	.0	.0	.0	1.0	1.3	
	4-10	1.6	1.4	.4	.6	2.4	1.5	.0	.8	.0		8.7	
	11-21	4.0	3.7	1.8	.3	1.5	2.3	5.3	4.8	.0		23.6	
	22+	.6	1.3	.2	.1	2.8	4.4	6.1	4.6	.0		20.1	
	TOT %	6.6	6.4	2.3	1.1	6.6	8.2	11.4	10.2	.0	1.0	53.7	
10+	0-3	.3	.0	.0	.0	.0	.2	.2	.0	.0	.3	1.0	
	4-10	1.2	2.5	.4	.3	2.3	1.8	.6	1.6	.0		10.7	
	11-21	2.9	2.8	.3	.0	.2	3.0	3.8	.9	.0		13.9	
	22+	.6	.2	.5	.3	.6	1.6	1.3	1.0	.0		6.1	
	TOT %	5.0	5.5	1.2	.6	3.2	6.6	5.8	3.5	.0	.3	31.7	
TOT OBS													309
TOT PCT		13.0	13.7	5.7	2.2	10.4	16.3	21.8	15.3	.0	1.6	100.0	

MAY

PERIOD: (PRIMARY) 1884-1977
(OVER-ALL) 1857-1977

AREA 0031 FOVEAUX STRAIT
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	3.0	.0	3.0	12.1	21.2	6.1	6.1	3.0	.0	.0	54.5	45.5	33
06&09	2.1	2.1	4.3	17.0	12.8	29.8	8.5	2.1	.0	.0	78.7	21.3	47
12&15	18.2	4.5	.0	18.2	22.7	4.5	4.5	.0	.0	.0	72.7	27.3	22
18&21	19.0	.0	.0	28.6	14.3	4.8	4.8	.0	4.8	4.8	81.0	19.0	21
TOT	10	2	3	22	21	18	8	2	1	1	88	35	123
PCT	8.1	1.6	2.4	17.9	17.1	14.6	6.5	1.6	.8	.8	71.5	28.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	5.2	1.7	1.7	5.2	41.4	44.8	58
06&09	3.9	1.9	2.9	3.9	57.3	30.1	103
12&15	.0	3.0	1.5	6.0	52.2	37.3	67
18&21	4.5	9.1	.0	5.7	58.0	22.7	88
TOT	11	13	5	16	169	102	316
PCT	3.5	4.1	1.6	5.1	53.5	32.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	3.0	6.1	27.3	33.3	39.4	33
06&09	2.2	6.7	28.9	51.1	20.0	45
12&15	18.2	22.7	40.9	31.8	27.3	22
18&21	20.0	20.0	50.0	35.0	15.0	20
TOT	10	14	41	48	31	120
PCT	8.3	11.7	34.2	40.0	25.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.6	.0	.0	.0	.0	1	.6
55/59	.0	.0	.0	.0	1.1	2.9	6.9	6.3	30	17.2
50/54	.0	.0	.6	.6	3.6	9.8	13.8	19.5	83	47.7
45/49	.0	.0	.0	.6	6.3	9.2	12.1	6.3	60	34.5
TOTAL	0	0	1	3	19	38	57	56	174	100.0
PCT	.0	.0	.6	1.7	10.9	21.8	32.8	32.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
3.2	2.3	.0	.0	.0	.1	4.3	7.3	.0	.0
3.7	5.3	4.5	1.0	2.3	7.0	18.1	5.2	.0	.6
1.1	2.3	1.1	1.7	6.0	11.2	8.6	2.3	.0	.0
8.6	9.9	5.6	2.7	8.3	18.4	31.0	14.8	.0	.6

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	62	61	57	50	45	42	42	50.7	72
06&09	66	63	57	51	45	41	41	50.8	106
12&15	57	56	56	50	45	41	41	50.1	73
18&21	59	58	57	50	44	39	39	49.6	101
TOT	66	61	57	50	45	41	39	50.3	352

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	2.4	14.6	31.7	17.1	34.1	83	41
06&09	.0	2.0	10.0	20.0	34.0	34.0	85	50
12&15	.0	4.7	7.0	18.6	46.5	23.3	83	43
18&21	.0	.0	11.4	18.2	31.8	38.6	87	44
TOT	0	4	19	39	58	58	84	178

MAY

PERIOD: (PRIMARY) 1884-1977
(OVER-ALL) 1857-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.0	2.0	.0	.0	5	.0	2.0
9/10	.0	.0	.0	.0	.4	.8	.4	.0	4	.0	1.6
7/8	.0	.0	.0	.0	2.4	.0	.0	.4	7	.4	2.4
6	.0	.0	.0	.0	.4	.0	.0	.0	1	.0	.4
5	.0	.0	.0	1.6	2.0	.0	.0	.0	9	.4	3.2
4	.0	.0	.0	3.2	.8	.4	.4	.0	12	.8	4.0
3	.0	.0	.0	.0	.8	.8	.4	.0	5	.0	2.0
2	.0	.0	.0	3.2	.8	.0	.0	.0	10	.0	4.0
1	.0	.0	1.2	2.4	2.4	.8	.0	.0	17	1.2	5.5
0	.0	.0	4.0	7.5	3.2	.0	.0	.0	37	1.2	13.4
-1	.0	.0	1.6	5.9	3.2	.8	.0	.0	29	3.2	8.3
-2	.0	.0	1.2	8.7	.4	.0	.0	.0	26	.4	9.9
-3	.0	.0	2.4	5.9	.0	.0	.0	.0	21	1.6	6.7
-4	.0	.0	4.0	3.2	.4	.0	.0	.0	19	.4	7.1
-5	.0	.8	4.7	2.0	.0	.0	.0	.0	19	.4	7.1
-6	.0	.8	2.8	.4	.0	.0	.0	.0	10	.0	4.0
-7/-8	.0	1.6	2.4	.4	.0	.0	.0	.0	11	.0	4.3
-9/-10	.4	1.2	2.0	.8	.0	.0	.0	.0	11	.0	4.3
TOTAL	1		66		43		3			25	228
		11		114		14		1	253		
PCT	.4	4.3	26.1	45.1	17.0	5.5	1.2	.4	100.0	9.9	90.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.0	.0	.0	.0	.0	.7
1-2	.0	2.2	1.3	.0	.0	.0	3.5
3-4	.0	.6	3.7	.6	.0	.0	4.8
5-6	.0	.0	2.2	.0	.0	.0	2.2
7	.0	.0	1.5	.0	.0	.0	1.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.7	.7
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.7	.7
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.8	8.6	.6	.0	1.5	14.2

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.0	.0	.0	.0	.9
1-2	.0	2.2	.9	.0	.0	.0	3.1
3-4	.0	1.7	.9	.2	.0	.0	2.8
5-6	.0	.7	.7	.0	.0	.0	1.5
7	.0	.0	2.2	.7	.0	.0	2.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.5	4.8	.9	.0	.0	11.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	.6	.0	.0	.0	.0	.6
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.5	.0	.0	.0	1.5
7	.0	.0	.0	.7	.0	.0	.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	1.5	.7	.0	.0	3.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7
1-2	.0	.4	.0	.0	.0	.0	.4
3-4	.0	.0	.0	.7	.0	.0	.7
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.2	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	.2	.7	.2	.0	2.2

PERIOD: (OVER-ALL) 1963-1977

MAY

TABLE 18 (CONT)

AREA 0031 FOVEAUX STRAIT 46.8S 168.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.5	.0	.0	.0	.0	1.5
1-2	.0	2.6	.0	.0	.0	.0	2.6
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.6	.0	.0	.0	.6
7	.0	.0	.7	.0	.6	.0	1.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.6	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.6	.0	.0	.0	.6
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.0	1.8	.0	1.1	.0	7.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	3.3	1.5	.0	.0	.0	4.8
3-4	.0	.7	.4	.0	.0	.0	1.1
5-6	.0	.7	5.0	.7	.0	.0	6.4
7	.0	.0	.4	1.5	.0	.0	1.8
8-9	.0	.0	.7	.7	.0	.0	1.5
10-11	.0	.0	.0	1.5	1.7	.0	3.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.7	.0	.0	.7
20-22	.0	.0	.0	.7	.0	.0	.7
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.0	7.9	5.9	1.7	.0	20.4

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.3	.0	.0	.0	.0	1.3
1-2	.0	.6	.0	.0	.0	.0	.6
3-4	.0	.0	4.0	.0	.0	.0	4.0
5-6	.0	.0	5.1	.7	.7	.0	6.6
7	.0	.0	3.3	.0	1.3	.0	4.6
8-9	.0	.0	.7	.7	.7	.0	2.2
10-11	.0	.0	.0	.0	.7	.0	.7
12	.0	.0	.0	.7	.7	.0	1.5
13-16	.0	.0	.7	.7	1.5	.0	2.9
17-19	.0	.0	.0	.0	.7	.7	1.5
20-22	.0	.0	.0	.0	.7	.0	.7
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.8	14.0	2.9	7.2	.7	26.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.5	.0	.0	.0	.0	1.5	
1-2	.0	1.5	.0	.0	.0	.0	1.5	
3-4	.0	.7	1.3	.0	.0	.0	2.0	
5-6	.0	.0	1.8	.0	.0	.0	1.8	
7	.0	.0	.7	.0	.2	.0	.9	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.7	.0	.7	.0	1.5	
12	.0	.0	.0	.0	.7	.0	.7	
13-16	.0	.0	.0	.0	1.5	.0	1.5	
17-19	.0	.0	.0	.0	.7	.0	.7	
20-22	.0	.0	.0	.0	.0	.7	.7	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	3.7	4.6	.0	3.9	.7	12.9	97.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.6	6.6	.0	.0	.0	.0	10.2	
1-2	.0	13.1	3.6	.0	.0	.0	16.8	
3-4	.0	3.6	10.2	1.5	.0	.0	15.3	
5-6	.0	1.5	16.8	1.5	.7	.0	20.4	
7	.0	.0	8.8	2.9	2.2	.0	13.9	
8-9	.0	.0	1.5	1.5	.7	.0	3.6	
10-11	.0	.0	.7	1.5	3.6	.0	5.8	
12	.0	.0	.0	.7	1.5	.0	2.2	
13-16	.0	.0	.7	.7	2.9	.7	5.1	
17-19	.0	.0	.7	.7	1.5	.7	3.6	
20-22	.0	.0	.0	.7	.7	1.5	2.9	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.6	24.8	43.1	11.7	13.9	2.9	100.0	137

PERIOD: (OVER-ALL) 1954-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	2.0	4.6	5.3	1.3	.7	.7	.7	.7	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	6
6-7	.0	.0	.7	6.6	7.9	2.0	.7	.0	2.0	1.3	.0	.0	.7	.0	.7	.0	.0	.0	.0	36	9
8-9	.0	.0	.0	3.3	.7	2.0	3.3	.0	2.6	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	19	10
10-11	.0	.7	.0	.0	1.3	3.9	2.0	.0	2.6	2.6	.7	.7	2.0	.0	.0	.0	.0	.0	.0	25	14
12-13	.0	.0	.7	1.3	1.3	.7	.0	1.3	2.0	1.3	.0	1.3	1.3	.0	.0	.0	.0	.0	.0	17	14
>13	.0	.0	.0	2.6	1.3	1.3	3.3	.0	.7	1.3	2.6	1.3	.7	1.3	.0	.0	.0	.0	.0	25	15
INDET	.0	.7	.7	.7	.0	.7	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	7
TOTAL	0	5	10	30	21	17	15	3	17	13	5	6	7	3	0	0	0	0	0	152	11
PCT	.0	3.3	6.6	19.7	13.8	11.2	9.9	2.0	11.2	8.6	3.3	3.9	4.6	2.0	.0	.0	.0	.0	.0	100.0	

JUNE

PERIOD: (PRIMARY) 1905-1977
(OVER-ALL) 1878-1977

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46.0S 168.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	9.8	2.4	4.9	.0	.0	.0	.0	17.1	.0	.0	.0	.0	.0		.0	82.9
NE	3.8	.0	3.8	.0	.0	.0	.0	7.7	7.7	.0	.0	.0	.0		.0	84.6
E	13.3	.0	6.7	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0		.0	80.0
SE	18.2	.0	20.5	.0	.0	.0	.0	38.6	.0	.0	.0	.0	.0		.0	61.4
S	5.1	5.1	3.8	.0	15.2	.0	.0	29.1	7.6	.0	.0	.0	.0		.0	63.3
SW	2.7	14.0	3.2	.0	4.3	.0	5.4	29.6	8.1	.0	.0	.0	.0		.0	62.4
W	10.4	12.2	6.1	.0	4.9	.0	3.7	37.2	4.9	.0	.0	.0	.0		.0	58.5
NW	6.5	9.8	6.5	.0	.0	.0	.0	22.8	3.3	.0	.0	.0	.0		.0	74.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
TOT PCT	7.1	8.2	5.6	.0	3.6	.0	2.0	26.5	4.6	.0	.0	.0	.0		.0	68.9
TOT OBS:	196															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.3	4.3	4.3	.0	2.1	.0	.0	14.9	2.1	.0	.0	.0	.0		.0	83.0
06&09	6.3	14.3	7.9	.0	3.2	.0	4.8	36.5	4.8	.0	.0	.0	.0		.0	58.7
12&15	5.0	12.5	5.0	.0	.0	.0	2.5	25.0	7.5	.0	.0	.0	.0		.0	67.5
18&21	11.3	1.9	5.7	.0	7.5	.0	.0	26.4	3.8	.0	.0	.0	.0		.0	69.8
TOT PCT	6.9	8.4	5.9	.0	3.4	.0	2.0	26.6	4.4	.0	.0	.0	.0		.0	69.0
TOT OBS:	203															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.2	4.4	2.9	2.5	.0	.6		9.9	16.9	12.3	.0	9.8	9.3	12.2	.0	6.0	10.3
NE	.2	3.3	1.6	.4	.6	.2		6.3	15.1	9.8	.0	7.8	9.3	4.4	.0	.5	7.4
E	.0	2.0	1.1	.0	.2	.0		3.2	11.4	1.6	.0	4.9	.0	1.1	.0	7.0	4.4
SE	.0	2.1	2.6	1.2	.0	.0		5.8	14.5	7.0	50.0	3.9	7.4	5.0	.0	5.0	4.4
S	.4	2.7	6.8	2.4	.4	.0		12.6	15.4	7.4	.0	8.8	13.9	17.2	.0	15.5	22.1
SW	.0	4.8	11.3	4.0	3.8	.4		24.4	19.5	27.0	.0	26.5	23.1	23.3	100.0	22.0	19.1
W	.4	4.6	7.7	5.1	2.6	.0		20.4	19.1	18.0	50.0	20.6	20.4	21.7	.0	25.0	8.8
NW	.4	2.9	4.1	6.1	1.1	.4		15.0	21.9	16.8	.0	17.6	13.0	8.3	.0	15.0	23.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.4							2.4	.0	.0	.0	.0	3.7	6.7	.0	4.0	.0
TOT OBS	10	68	99	55	22	4	254		17.7	61	2	51	27	45	1	50	17
TOT PCT	3.9	26.8	39.4	21.7	8.7	1.6		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	.8	5.2	2.5	.9	.6		9.9	16.9	11.9	9.6	12.0	7.1
NE	2.8	1.2	1.2	.6	.6		6.3	15.1	9.5	8.3	4.3	2.2
E	1.2	1.5	.4	.2	.0		3.2	11.4	1.6	3.2	1.1	6.3
SE	.5	3.7	.8	.8	.0		5.8	14.5	8.3	5.1	4.9	4.9
S	1.5	6.6	4.1	.0	.4		12.6	15.4	7.1	10.6	16.8	17.2
SW	2.4	10.3	5.4	5.1	1.2		24.4	19.5	26.2	25.3	25.0	21.3
W	2.3	8.1	5.2	3.8	1.0		20.4	19.1	19.0	20.5	21.2	20.9
NW	.9	3.9	5.2	3.5	1.4		15.0	21.9	16.3	16.0	8.2	17.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.4						2.4	.0	.0	1.3	6.5	3.0
TOT OBS	37	103	63	38	13	254		17.7	63	78	46	67
TOT PCT	14.6	40.6	24.8	15.0	5.1		100.0		100.0	100.0	100.0	100.0

JUNE

PERIOD: (PRIMARY) 1905-1977
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	.0	3.2	20.6	47.6	20.6	3.2	4.8	18.0	100.0	63
06&09	1.3	.0	28.2	33.3	28.2	7.7	1.3	18.0	100.0	78
12&15	6.5	.0	34.8	32.6	17.4	8.7	.0	16.1	100.0	46
18&21	3.0	3.0	25.4	35.8	17.9	14.9	.0	18.1	100.0	67
TOT	6	4	68	95	55	22	4	17.7		254
PCT	2.4	1.6	26.8	37.4	21.7	8.7	1.6		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.0	1.0	2.0	2.7		4.4
NE	1.2	.0	2.5	1.0		5.5
E	1.5	.0	1.5	1.0		4.7
SE	.2	2.2	4.0	3.5		6.0
S	.7	2.7	1.5	4.0		5.9
SW	2.2	1.0	11.1	5.7		6.0
W	3.7	1.7	12.4	8.4		5.9
NW	1.2	2.2	6.7	4.5		6.0
VAR	.0	.0	.0	.0		.0
CALM	2.0	.0	.0	1.0		2.6
TOT OBS	16	11	42	32	101	5.6
TOT PCT	15.8	10.9	41.6	31.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY WGT	TOTAL OBS
N	.0	.0	.0	1.7	1.0	2.0	.0	.0	.0	.0	4.0	
NE	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	3.7	
E	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	3.0	
SE	2.0	.0	.0	2.2	2.2	.0	.0	.0	.0	.0	3.5	
S	.0	.0	.0	.7	2.2	1.0	.7	.0	.0	.0	4.2	
SW	1.0	.0	.0	4.0	5.0	3.5	2.2	.0	.0	.0	4.5	
W	1.0	.0	.0	4.0	4.0	4.5	1.0	1.0	.0	.0	10.9	
NW	.0	.0	.0	1.2	1.5	4.0	1.0	.0	.0	.0	6.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	2.0	
TOT OBS	4	0	0	14	19	13	5	1	0	0	43	101
TOT PCT	4.0	.0	.0	13.9	18.8	14.9	5.0	1.0	.0	.0	42.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
* OR >9000	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
* OR >9500	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
* OR >2000	15.4	17.3	18.3	20.2	20.2	20.2	20.2	20.2
* OR >1000	26.9	29.8	35.6	38.5	38.5	38.5	38.5	38.5
* OR >600	33.7	41.3	49.0	51.9	51.9	51.9	51.9	51.9
* OR >300	33.7	41.3	49.0	51.9	51.9	51.9	51.9	51.9
* OR >150	33.7	41.3	49.0	51.9	51.9	51.9	51.9	51.9
* OR > 0	33.7	44.2	52.9	55.8	55.8	55.8	55.8	55.8
TOTAL	35	46	55	58	58	58	58	58

TOTAL NUMBER OF OBS: 104 PCT FREQ NH <5/8: 44.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.8	4.5	10.0	11.8	5.5	7.3	8.2	11.8	25.5	3.6	110

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	PCP	.3	.0	.0	.0	.5	.0	.0	.5	.0	.0	1.0	
1/2<1	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.0	.0	.0	.5	.0	.0	.5	.0	.0	1.0	
	PCP	.0	.0	.0	.0	.0	.6	.4	.0	.0	.0	1.0	
1<2	NO PCP	.0	.0	.0	.0	.0	.1	.4	.0	.0	.0	.5	
	TOT %	.0	.0	.0	.0	.0	.8	.8	.0	.0	.0	1.5	
	PCP	.0	.0	.5	1.7	.4	.0	.4	.6	.0	.0	3.6	
2<5	NO PCP	.0	.0	.0	.0	.8	1.4	.4	.0	.0	.0	2.6	
	TOT %	.0	.0	.5	1.7	1.1	1.4	.8	.6	.0	.0	6.1	
	PCP	1.5	.5	.3	.5	2.0	6.4	5.5	2.7	.0	.0	19.4	
5<10	NO PCP	2.8	3.1	1.9	.3	2.4	4.8	2.4	3.1	.0	.5	21.4	
	TOT %	4.3	3.6	2.2	.8	4.5	11.2	8.0	5.7	.0	.5	40.8	
	PCP	.0	.0	.0	.0	.0	.0	1.5	.0	.0	.0	1.5	
10+	NO PCP	5.9	3.1	1.1	3.2	4.8	10.3	9.8	9.1	.0	2.6	49.0	
	TOT %	5.9	3.1	1.1	3.2	4.8	10.3	11.4	9.1	.0	2.6	50.5	
	TOT OBS												196
	TOT PCT	10.5	6.6	3.8	5.6	10.1	23.7	20.9	15.7	.0	3.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.0	.0	.0	.5	.0	.0	.0	.0		.5	
	11-21	.0	.0	.0	.0	.4	.1	.0	.0	.0		.5	
	22+	.3	.0	.0	.0	.0	.0	.0	.3	.0		.5	
	TOT %	.3	.0	.0	.0	.9	.1	.0	.3	.0	.0	1.5	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.1	.4	.0	.0		.5	
	22+	.0	.0	.0	.0	.0	.6	.4	.0	.0		1.0	
	TOT %	.0	.0	.0	.0	.0	.8	.8	.0	.0	.0	1.5	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	4-10	.0	.0	.0	.4	.6	.0	.0	.0	.0		1.0	
	11-21	.0	.0	.5	.0	.8	.8	.0	.0	.0		2.0	
	22+	.0	.0	.0	1.5	.0	.6	.8	.6	.0		3.5	
	TOT %	.0	.0	.5	1.9	1.4	1.4	.8	.6	.0	.0	6.6	
	0-3	.0	.0	.0	.0	.0	.0	.0	.5	.0	.5	1.0	
5<10	4-10	2.3	2.8	1.4	.3	.4	2.0	.6	.9	.0		10.6	
	11-21	1.0	.5	.5	.5	2.3	4.3	2.3	.8	.0		12.6	
	22+	1.0	.3	.3	.0	1.8	4.3	4.8	3.5	.0		16.2	
	TOT %	4.3	3.5	2.1	.8	4.4	11.1	8.0	5.7	.0	.5	40.4	
	0-3	.0	.0	.0	.0	.5	.0	.5	.0	.0	2.5	3.5	
10+	4-10	2.9	1.5	1.1	1.5	1.4	3.7	4.4	1.6	.0		18.2	
	11-21	1.9	1.5	.0	1.6	2.0	5.4	3.0	4.2	.0		19.7	
	22+	1.0	.0	.0	.0	.0	1.1	3.3	3.2	.0		8.6	
	TOT %	5.8	3.0	1.1	3.2	3.9	10.2	11.2	9.0	.0	2.5	50.0	
	TOT OBS												198
	TOT PCT	10.4	6.6	3.8	5.8	10.6	23.6	20.7	15.5	.0	3.0	100.0	

JUNE

PERIOD: (PRIMARY) 1905-1977
(OVER-ALL) 1878-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	.0	14.7	23.5	14.7	2.9	2.9	.0	.0	58.8	41.2	34
06&09	.0	.0	.0	10.0	20.0	20.0	3.3	.0	.0	.0	53.3	46.7	30
12&15	6.3	.0	.0	12.5	12.5	12.5	6.3	.0	.0	.0	50.0	50.0	16
18&21	11.5	.0	.0	15.4	11.5	7.7	7.7	.0	.0	.0	53.8	46.2	26
TOT	4	0	0	14	19	15	5	1	0	0	58	48	106
PCT	3.8	.0	.0	13.2	17.9	14.2	4.7	.9	.0	.0	54.7	45.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	2.1	2.1	4.3	21.3	70.2	47
06&09	.0	1.6	3.2	6.3	52.4	36.5	63
12&15	.0	2.4	.0	7.3	31.7	58.5	41
18&21	.0	1.9	.0	7.4	48.1	42.6	54
TOT	0	4	3	13	82	103	205
PCT	.0	2.0	1.5	6.3	40.0	50.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	.0	25.0	37.5	37.5	32
06&09	.0	.0	26.7	26.7	46.7	30
12&15	6.3	6.3	18.8	31.3	50.0	16
18&21	11.5	11.5	30.8	23.1	46.2	26
TOT	4	4	27	31	46	104
PCT	3.8	3.8	26.0	29.8	44.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
55/59	.0	.7	.0	.0	.7	2.9	2.2	.0	9	6.6
50/54	.0	.0	.0	1.5	4.4	16.8	7.3	5.8	49	35.8
45/49	.0	.0	.0	2.2	5.1	13.1	19.0	6.6	63	46.0
40/44	.0	.0	.0	.7	1.5	3.6	2.9	.7	13	9.5
35/39	.0	.0	.0	.0	.0	.0	1.5	.7	3	2.2
TOTAL	0	1	0	6	16	50	45	19	137	100.0
PCT	.0	.7	.0	4.4	11.7	36.5	32.8	13.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.7	.0	.0	.7	.0	.0	.0	4.4	.0	.7
4.2	1.1	1.3	2.4	2.0	5.3	8.8	10.0	.0	.7
4.9	4.2	1.8	1.8	4.2	10.6	14.4	2.2	.0	1.5
.0	.2	1.3	.7	.5	2.4	2.0	1.6	.0	.7
.0	.0	.0	1.5	.0	.7	.0	.0	.0	.0
9.9	5.5	4.4	7.1	6.8	19.0	25.5	18.2	.0	3.6

TABLE 15

MEANS,EXTREMES AND PRCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	60	59	55	49	41	33	33	49.0	64
06&09	59	58	54	48	37	34	34	47.5	78
12&15	57	56	53	47	42	34	34	47.6	47
18&21	59	58	55	48	35	34	34	47.2	68
TOT	60	59	54	48	39	34	33	47.8	257

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	.0	23.1	25.6	30.8	20.5	81	39
06&09	.0	13.5	8.1	32.4	32.4	13.5	78	37
12&15	.0	.0	7.1	53.6	28.6	10.7	79	28
18&21	.0	5.3	5.9	34.2	39.5	15.8	82	38
TOT	0	7	16	50	47	22	80	142

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PERIOD: (PRIMARY) 1905-1977
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TABLE 17

AREA 0031 FOVEAUX STRAIT
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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	TOT	W FOG	WO FOG
11/13	.0	.6	.0	.0	2.4	4	.0	2.4
9/10	.0	.6	.0	1.2	.6	3	.0	1.8
7/8	.0	.0	.0	1.8	.0	3	.0	1.8
5	.0	.0	6.1	.6	.0	11	.0	6.7
4	.0	1.8	3.6	1.2	.0	11	.0	6.7
3	.0	.6	2.4	.0	.0	4	.0	2.4
2	.0	6.7	1.2	.6	.0	14	.0	8.5
1	.0	.0	5.5	1.2	.0	11	.0	6.7
0	.0	6.7	8.5	1.2	.0	27	.0	16.4
-1	.6	1.2	4.2	.0	.0	10	.0	6.1
-2	.0	3.6	3.0	.0	.0	11	.0	6.7
-3	.6	6.7	3.0	.0	.0	17	.0	10.3
-4	.0	1.2	2.4	1.2	.0	8	.0	4.8
-5	.6	4.8	1.8	.0	.0	12	.0	7.3
-6	3.0	3.0	.0	.0	.0	10	.0	6.1
-7/-8	1.2	2.4	.0	.0	.0	6	.0	3.6
-9/-10	.0	1.2	.0	.0	.0	2	.0	1.2
-11/-13	.6	.0	.0	.0	.0	1	.0	.6
TOTAL	11	65	69	15	5	165	0	165
PCT	6.7	39.4	41.8	9.1	3.0	100.0		100.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.8	.0	.0	.0	.0	1.8
1-2	.0	.9	.9	.0	.0	.0	1.8
3-4	.0	1.8	.9	.0	.0	.0	2.8
5-6	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.0	.9	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.9	.0	.0	.9
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.6	2.9	1.8	.0	.0	8.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	1.1	.0	.0	.0	.0	1.1
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	1.8	.0	.0	.0	1.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	1.8	.0	.0	.0	3.0

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	1.4	.9	.0	.0	.0	2.3
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	.9	.0	.0	.0	2.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	.2	.9	.0	.0	.0	1.1
3-4	.0	2.1	2.1	.0	.0	.0	4.1
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.9	.0	.0	.9
10-11	.0	.0	.9	.0	.0	.0	.9
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.9	.0	.0	.9
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.4	3.9	1.8	.0	.0	9.2

PERIOD: (OVER-ALL) 1963-1977 JUNE AREA 0031 FOVEAUX STRAIT

TABLE 18 (CONT) 46.8S 168.1E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	1.6	.0	.0	.0	.0	2.5	.0	4.6	.0	.0	.0	.0	4.6
1-2	.0	1.4	.0	.0	.0	.0	1.4	.0	.2	.0	.0	.0	.0	.2
3-4	.0	.0	2.3	.0	.0	.0	2.3	.0	.0	3.2	.0	.0	.0	3.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.9	4.6	.0	.0	.0	5.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	1.1	.0	.0	3.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	1.1	.2	.0	2.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.9	.0	.0	1.8
12	.0	.0	.7	.0	.0	.0	.7	.0	.0	1.1	.0	.0	.0	1.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	3.0	3.0	.0	.0	.0	6.9	.0	6.7	11.7	3.2	.2	.0	21.8

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.9	2.8	.0	.0	.0	.0	3.7	.0	.9	.0	.0	.0	.0	.9	
1-2	.0	.9	.0	.0	.0	.0	.9	.0	.9	.0	.0	.0	.0	.9	
3-4	.0	1.8	2.8	.0	.0	.0	4.6	.0	.0	1.6	.0	.0	.0	1.6	
5-6	.0	.7	1.8	.9	.0	.0	3.4	.0	.2	.2	.0	.0	.0	.5	
7	.0	.0	.9	5.0	.0	.0	6.0	.0	.0	1.8	3.9	.0	.0	5.7	
8-9	.0	.0	.0	2.5	1.4	.0	3.9	.0	.0	1.8	3.7	.2	.0	5.7	
10-11	.0	.0	.7	1.8	.0	.0	2.5	.0	.0	.2	1.8	.0	.0	2.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.9	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.9	6.2	6.2	10.3	1.4	.0	25.0	.0	2.1	6.7	9.4	.2	.0	18.3	95.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.3	12.7	.0	.0	.0	.0	20.0	
1-2	.0	4.5	1.8	.0	.0	.0	6.4	
3-4	.0	8.2	13.6	.0	.0	.0	21.8	
5-6	.0	1.8	7.3	.9	.0	.0	10.0	
7	.0	.0	4.5	10.9	.0	.0	15.5	
8-9	.0	.9	.8	8.2	1.8	.0	12.7	
10-11	.0	.0	.5	5.5	.0	.0	10.0	
12	.0	.0	2.7	.0	.0	.0	2.7	
13-16	.0	.0	.0	.9	.0	.0	.9	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.3	28.2	36.4	26.4	1.8	.0	100.0	110

PERIOD: (OVER-ALL) 1949-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	1.7	5.0	1.7	2.5	1.7	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	5
6-7	.0	3.4	.8	5.0	1.7	5.0	3.4	2.5	1.7	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	29	8
8-9	.0	.0	.8	1.7	1.7	.8	.8	2.5	1.7	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	10
10-11	.0	.0	.0	.8	.0	.8	.8	1.7	.8	.0	1.7	1.7	.0	.0	.0	.0	.0	.0	.0	10	15
12-13	.0	.0	.0	.8	.8	.0	.8	.8	1.7	.8	.0	.0	.8	.0	.0	.0	.0	.0	.0	8	13
>13	.0	.0	.0	.0	2.5	5.0	3.4	5.0	9.2	3.4	1.7	.8	.0	.0	.0	.0	.0	.0	.0	37	12
INDET	1.7	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	2
TOTAL	3	6	8	13	11	16	13	15	18	7	4	4	1	0	0	0	0	0	0	119	10
PCT	2.5	5.0	6.7	10.9	9.2	13.4	10.9	12.6	15.1	5.9	3.4	3.4	.8	.0	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1883-1977
(OVER-ALL) 1876-1977

AREA 0031 FOVEAUX STRAIT
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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	.0	2.9	.0	.0	.0	.0	.0	2.9	3.8	.0	.0	.0	.0	.0	.0	93.3
NE	1.2	1.2	9.9	.0	.0	.0	.0	12.3	1.2	.0	4.9	.0	.0	.0	.0	81.5
E	8.8	.0	10.0	.0	.0	.0	.0	18.8	3.8	.0	7.5	.0	5.0	.0	.0	65.0
SE	.0	.0	11.9	.0	.0	.0	.0	11.9	6.0	.0	23.9	.0	.0	.0	.0	58.2
S	20.0	5.7	5.7	.0	.0	.0	11.4	42.9	.0	.0	5.7	.0	.0	.0	.0	51.4
SW	26.7	7.6	1.0	.0	.0	.0	3.8	38.1	5.7	.0	6.7	.0	.0	.0	.0	49.5
W	4.3	8.6	2.2	.0	.0	.0	.0	12.9	12.9	.0	5.0	.0	.0	.0	.0	69.1
NW	10.4	10.2	.0	.0	.0	.0	.0	20.6	5.2	7.8	2.6	.0	.0	.0	.0	63.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	25.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	.0	.0	.0	75.0
TOT PCT	8.8	6.9	4.4	.0	.0	.0	1.5	21.1	5.4	1.5	5.9	.0	.5	.0	.0	67.2
TOT OBS:	204															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.3	10.6	2.1	.0	.0	.0	.0	17.0	6.4	.0	10.6	.0	2.1	.0	.0	63.8
06&09	10.6	4.5	6.1	.0	.0	.0	1.5	21.2	6.1	1.5	1.5	.0	.0	.0	.0	71.2
12&15	10.8	.0	5.4	.0	.0	.0	5.4	21.6	2.7	2.7	2.7	.0	.0	.0	.0	73.0
18&21	8.2	9.8	3.3	.0	.0	.0	.0	21.3	4.9	1.6	8.2	.0	.0	.0	.0	65.6
TOT PCT	8.5	6.6	4.3	.0	.0	.0	1.4	20.4	5.2	1.4	5.7	.0	.5	.0	.0	68.2
TOT OBS:	211															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.4	4.9	2.1	3.1	.3	.M		12.5	17.3	12.7	.0	12.1	17.0	20.9	.0	9.5	2.0
NE	.0	3.9	2.7	2.5	.0	.0		9.1	14.2	8.2	.0	8.6	5.7	13.4	33.3	8.5	6.0
E	.6	2.5	3.8	1.0	.9	.0		8.7	15.4	6.6	.0	6.9	15.9	11.6	.0	8.0	9.0
SE	.2	2.5	3.5	.7	.7	.0		7.5	15.6	8.6	.0	3.4	14.8	4.7	33.3	8.0	9.0
S	.2	2.4	4.4	4.7	1.5	.0		13.2	21.3	13.1	.0	10.8	17.0	11.0	16.7	11.0	23.9
SW	.6	2.6	4.5	4.1	.3	.1		12.3	18.1	11.5	.0	9.1	17.0	10.5	16.7	18.0	9.0
W	.4	4.4	4.4	3.9	2.2	.7		16.1	20.5	14.3	.0	23.3	2.3	15.7	.0	19.5	12.0
NW	.0	4.9	8.0	4.2	1.2	.8		19.1	19.2	25.0	.0	24.1	10.2	9.9	.0	13.5	30.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.5							1.5	.0	.0	.0	1.7	.0	2.3	.0	4.0	.0
TOT OBS	10	76	88	63	19	6	262		18.0	61	0	58	22	43	3	50	25
TOT PCT	3.8	29.0	33.6	24.0	7.3	2.3		100.0		100.0	.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.9	5.5	3.1	1.2	.8		12.5	17.3	12.7	13.4	19.6	7.0
NE	1.5	4.5	2.9	.2	.0		9.1	14.2	8.2	7.8	14.7	7.7
E	1.6	4.3	1.9	.6	.3		8.7	15.4	6.6	9.4	10.9	8.3
SE	.8	4.8	.7	.9	.5		7.5	15.6	8.6	6.6	6.5	8.3
S	1.3	2.4	5.5	2.8	1.1		13.2	21.3	13.1	12.5	11.4	15.0
SW	2.0	3.5	5.0	1.7	.1		12.3	18.1	11.5	11.3	10.9	15.0
W	1.8	6.1	4.7	1.7	1.8		16.1	20.5	14.3	17.5	14.7	17.0
NW	2.4	7.1	5.3	2.4	1.9		19.1	19.2	25.0	20.3	9.2	19.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.5						1.5	.0	.0	1.3	2.2	2.7
TOT OBS	39	100	76	30	17	262		18.0	61	80	46	75
TOT PCT	14.9	38.2	29.0	11.5	6.5		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1883-1977
(OVER-ALL) 1876-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	.0	4.9	29.5	37.7	23.0	4.9	.0	16.4	100.0	61
06&09	1.3	.0	26.3	33.8	26.3	10.0	2.5	19.5	100.0	80
12&15	2.2	4.3	34.8	26.1	26.1	4.3	2.2	16.1	100.0	46
18&21	2.7	1.3	28.0	34.7	21.3	8.0	4.0	18.8	100.0	75
TOT	4	6	76	88	63	19	6	18.0		262
PCT	1.5	2.3	29.0	33.6	24.0	7.3	2.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.3	2.6	3.8	7.1		6.0
NE	1.3	.0	5.1	2.2		5.7
E	2.2	1.0	2.6	7.1		6.0
SE	.3	.3	.3	2.6		6.8
S	.0	.0	2.2	2.2		7.2
SW	1.6	1.9	7.1	3.5		5.7
W	1.0	5.4	10.9	5.9		5.9
NW	1.3	2.9	7.7	4.2		6.0
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	1.3	1.3		7.5
TOT OBS	7	11	32	28	78	6.0
TOT PCT	9.0	14.1	41.0	35.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	1.3	1.9	1.3	1.3	.0	.0	.0	9.0	
NE	.0	.0	.0	.0	4.5	1.3	.0	.0	.0	.0	2.9	
E	.0	.0	.0	3.8	2.2	1.3	1.3	.0	.0	.0	4.2	
SE	.0	.0	.0	2.4	.0	.0	.0	.0	.0	.0	1.0	
S	.0	.0	1.3	1.3	.0	1.0	.0	.0	.0	.0	1.0	
SW	.3	.0	3.8	.3	1.6	1.6	.0	1.3	.0	.0	5.1	
W	1.0	.0	.0	2.2	7.4	.0	2.6	.0	.0	.0	9.9	
NW	.0	.0	.0	.0	2.9	2.6	1.3	1.3	.0	.0	8.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	1.3	
TOT OBS	1	0	4	9	17	7	5	2	0	0	33	78
TOT PCT	1.3	.0	5.1	11.5	21.8	9.0	6.4	2.6	.0	.0	42.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
= OR >3500	9.6	9.6	10.8	10.8	10.8	10.8	10.8	10.8
= OR >2000	16.9	19.3	20.5	20.5	20.5	20.5	20.5	20.5
= OR >1000	27.7	38.6	41.0	41.0	41.0	41.0	41.0	41.0
= OR >600	31.3	42.2	49.4	50.6	51.8	51.8	51.8	51.8
= OR >300	33.7	47.0	54.2	55.4	56.6	56.6	56.6	56.6
= OR >150	33.7	47.0	54.2	55.4	56.6	56.6	56.6	56.6
= OR > 0	34.9	48.2	55.4	56.6	59.0	59.0	59.0	59.0
TOTAL	29	40	46	47	49	49	49	49

TOTAL NUMBER OF OBS: 83

PCT FREQ NH <5/8: 41.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
4.5	6.7	7.9	6.7	12.4	10.1	9.0	13.5	29.1	1.1	89

JULY

PERIOD: (PRIMARY) 1883-1977
(OVER-ALL) 1876-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
	TOT %	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
1/2<1	PCP	.0	.0	.0	.0	.0	.1	.4	.0	.0	.0	.5	
	NO PCP	.5	.5	.2	1.5	.2	.0	.0	.0	.0	.0	3.0	
	TOT %	.5	.5	.2	1.5	.2	.1	.4	.0	.0	.0	3.4	
1<2	PCP	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.5	
	NO PCP	.0	.0	.0	.0	.2	.2	1.0	.0	.0	.0	1.5	
	TOT %	.0	.0	.5	.0	.2	.2	1.0	.0	.0	.0	2.0	
2<5	PCP	.0	.0	.5	.0	.5	.1	.4	.0	.0	.0	1.5	
	NO PCP	.5	.0	.5	.0	.0	.7	1.2	.5	.0	.0	3.4	
	TOT %	.5	.0	1.0	.0	.5	.9	1.6	.5	.0	.0	4.9	
5<10	PCP	.4	.1	.5	1.0	2.7	4.7	1.0	3.9	.0	.5	14.8	
	NO PCP	4.0	4.8	4.4	2.2	2.7	2.2	6.9	7.5	.0	.0	36.9	
	TOT %	4.4	4.9	5.0	3.2	5.4	6.9	7.9	11.5	.0	.5	51.7	
10+	PCP	.0	1.1	.4	.0	.0	.0	.5	1.9	.0	.0	3.4	
	NO PCP	5.4	3.4	2.7	3.1	1.7	4.8	5.8	5.5	.0	1.5	34.0	
	TOT %	5.4	4.6	3.1	3.1	1.7	4.8	6.3	7.0	.0	1.5	37.4	
	TOT OBS												203
	TOT PCT	12.8	10.0	9.9	8.3	8.1	12.9	17.1	19.0	.0	2.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.5	.0	.0	.0	.0	.0		.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.5	.0	.5	.0	.0	.0	.0	.0		1.0	
	11-21	.0	.0	.2	1.0	.2	.0	.0	.0	.0		1.5	
	22+	.5	.0	.0	.0	.0	.1	.4	.0	.0		1.0	
	TOT %	.5	.5	.2	1.5	.2	.1	.4	.0	.0	.0	3.4	
1<2	0-3	.0	.0	.0	.0	.2	.2	.5	.0	.0	.0	1.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.5	.0	.0	.0	.5	.0	.0		1.0	
	TOT %	.0	.0	.5	.0	.2	.2	1.0	.0	.0	.0	2.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.5	.0	.0	.2	.7	.0	.0		1.5	
	11-21	.0	.0	.0	.0	.0	.5	.0	.0	.0		.5	
	22+	.5	.0	.5	.0	.5	.1	.9	.5	.0		3.0	
	TOT %	.5	.0	1.0	.0	.5	.9	1.6	.5	.0	.0	4.9	
5<10	0-3	.5	.0	.7	.2	.0	.0	.0	.0	.0	.5	2.0	
	4-10	3.2	.5	.5	1.5	1.2	1.0	1.2	2.2	.0		11.3	
	11-21	.6	1.7	3.8	1.5	1.0	2.5	1.5	5.2	.0		17.7	
	22+	2.1	2.7	.0	.0	3.2	3.4	5.2	4.1	.0		20.7	
	TOT %	6.4	4.9	5.0	3.2	5.4	6.9	7.9	11.5	.0	.5	51.7	
10+	0-3	.0	.0	.0	.0	.0	.5	.0	.0	.0	1.5	2.0	
	4-10	3.0	3.6	2.2	1.2	1.0	.9	2.5	2.0	.0		16.3	
	11-21	1.0	1.0	.9	1.1	.0	1.4	3.0	2.6	.0		10.8	
	22+	1.5	.0	.0	.7	.7	2.1	.9	2.5	.0		8.4	
	TOT %	5.4	4.6	3.1	3.1	1.7	4.8	6.3	7.0	.0	1.5	37.4	
	TOT OBS												203
	TOT PCT	12.8	10.0	9.9	8.3	8.1	12.9	17.1	19.0	.0	2.0	100.0	

JULY

PERICD: (PRIMARY) 1883-1977
(OVER-ALL) 1876-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	8.7	8.7	13.0	17.4	4.3	.0	.0	.0	52.2	47.8	23
06&09	5.9	.0	2.9	17.6	14.7	8.8	14.7	5.9	.0	.0	70.6	29.4	34
12&15	.0	.0	.0	9.1	45.5	.0	9.1	.0	.0	.0	63.6	36.4	11
18&21	.0	.0	6.7	.0	26.7	6.7	.0	.0	.0	.0	40.0	60.0	15
TOT	2	0	4	9	17	8	7	2	0	0	49	34	83
PCT	2.4	.0	4.8	10.8	20.5	9.6	8.4	2.4	.0	.0	59.0	41.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	6.4	.0	2.1	42.6	48.9	47
06&09	.0	3.1	1.5	7.7	50.8	36.9	65
12&15	.0	.0	5.4	.0	51.4	43.2	37
18&21	1.6	3.3	1.6	6.6	57.4	29.5	61
TOT	1	7	4	10	107	81	210
PCT	.5	3.3	1.9	4.8	51.0	38.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	8.7	17.4	34.8	47.8	23
06&09	5.9	11.8	32.4	38.2	29.4	34
12&15	.0	.0	9.1	54.5	36.4	11
18&21	.0	6.7	13.3	33.3	53.3	15
TOT	2	7	18	32	33	83
PCT	2.4	8.4	21.7	38.6	39.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
50/54	.0	.0	.0	.0	5.0	7.9	13.9	11.9	39	38.6
45/49	.0	.0	1.0	2.0	9.0	18.8	15.8	10.9	52	51.5
40/44	.0	.0	.0	1.0	.0	1.0	6.9	1.0	10	9.9
TOTAL	0	0	1	3	8	28	37	24	101	100.0
PCT	.0	.0	1.0	3.0	7.9	27.7	36.6	23.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
11.4	5.2	3.0	.0	.0	1.0	6.9	9.2	.0	2.0
5.9	2.2	5.4	3.5	4.7	9.7	14.9	3.2	.0	2.0
.0	1.0	.0	1.0	1.7	3.2	1.0	2.0	.0	.0
17.3	8.4	8.4	4.5	6.4	13.9	22.8	14.4	.0	4.0

TABLE 15

MEANS,EXTREMES AND PRCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	58	57	54	49	43	41	41	48.5	58
06&09	54	53	53	48	43	41	41	48.2	76
12&15	57	56	52	47	43	41	41	47.0	45
18&21	52	51	50	46	41	36	36	45.8	74
TOT	58	57	52	47	42	41	36	47.4	253

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&09	.0	3.4	10.3	27.6	37.9	20.7	82	29
06&09	.0	.0	11.8	26.5	38.2	23.5	84	34
12&15	.0	5.3	5.3	36.8	31.6	21.1	82	19
18&21	.0	8.0	.0	20.0	44.0	28.0	83	25
TOT	0	4	8	29	41	25	83	107

JULY

PERIOD: (PRIMARY) 1883-1977
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	TOT	W FOG	WO FOG
9/10	.0	.0	.0	1.2	.0	2	.0	1.2
7/8	.0	.0	2.4	.0	.0	4	.0	2.4
6	.0	.0	.6	.0	.0	1	.0	.6
5	.0	.0	5.4	.0	.6	10	.0	6.0
4	.0	3.6	.6	.0	.0	7	.0	4.2
3	.0	.6	1.2	1.2	.0	5	.0	3.0
2	.0	3.0	1.8	.0	.0	8	.0	4.8
1	.6	.6	1.8	.6	.0	6	.6	3.0
0	.6	7.8	5.4	.6	.0	24	1.2	13.2
-1	.6	7.8	3.6	1.2	.0	22	.0	13.2
-2	3.0	7.2	1.2	.0	.0	19	1.8	9.6
-3	.0	6.0	3.0	.0	.0	15	.6	8.4
-4	1.8	3.6	1.2	.0	.0	11	.0	6.6
-5	4.2	3.6	.0	.0	.0	13	.6	7.2
-6	3.0	.0	.0	.0	.0	5	.6	2.4
-7/-8	4.8	1.8	.0	.0	.0	11	.0	6.6
-9/-10	1.8	.0	.0	.0	.0	3	.0	1.8
-11/-13	.6	.0	.0	.0	.0	1	.0	.6
TOTAL	35	76	47	8	1	167	9	158
PCT	21.0	45.5	28.1	4.8	.6	100.0	5.4	94.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.4	.0	.0	.0	.0	2.4
1-2	.0	2.4	.0	.0	.0	.0	2.4
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	2.1	.0	.0	.0	2.1
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	1.2	.9	.0	2.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	1.2	1.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	1.2	1.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.8	2.1	1.2	.9	2.4	11.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	8.4	1.2	.0	.0	.0	9.6
3-4	.0	.3	.0	.0	.0	.0	.3
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	1.2	.0	.0	.0	1.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.7	2.7	.0	.0	.0	11.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	1.2	4.5	1.2	.0	.0	.0	6.9
3-4	.0	2.1	.0	.0	.0	.0	2.1
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	1.2	.0	.0	1.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.9	.0	.0	.0	.9
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	6.6	2.1	1.2	.0	.0	11.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.3	.0	.0	.0	.0	.3
3-4	.0	2.7	.0	.0	.0	.0	2.7
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.0	.3	.0	.0	.0	3.3

PERIOD: (OVER-ALL) 1963-1977 JULY AREA 2631 FOVEAUX STRAIT 46.8S 168.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.2	.0	.0	.0	.0	1.2
3-4	.0	1.8	.0	.0	.0	.0	1.8
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	3.6	.0	.0	3.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.0	.0	3.6	.0	.0	6.6

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.3	1.2	.0	.0	.0	1.5
3-4	.0	.6	3.0	2.4	.0	.0	6.0
5-6	.0	.0	1.5	1.2	.0	.0	2.7
7	1.2	1.2	1.2	.0	.0	.0	3.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	1.2	.0	1.2
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	2.1	6.9	3.9	1.5	.0	15.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.2	.0	.0	.0	.0	1.2
1-2	.0	3.3	.0	.0	.0	.0	3.3
3-4	.0	2.1	3.0	.0	.0	.0	5.1
5-6	.0	.0	.9	.0	.0	.0	.9
7	.0	.0	.9	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.9	1.2	.0	2.1
12	.0	.0	.0	.0	1.2	.0	1.2
13-16	.0	.0	.0	.0	3.3	1.2	4.5
17-19	.0	.0	.0	.0	1.2	.0	1.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.6	4.8	.9	6.9	1.2	20.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	1.2	.0	.0	.0	1.2	
3-4	.0	1.2	2.4	.0	.0	.0	3.6	
5-6	.0	.0	2.4	1.2	.0	.0	3.6	
7	.0	.0	.3	1.2	.0	.0	1.5	
8-9	.0	.0	.0	1.2	.0	.0	1.2	
10-11	.0	.0	.0	1.2	1.5	.0	2.7	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	1.2	.0	.0	1.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.2	6.3	6.0	1.5	.0	15.1	95.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.8	3.6	.0	.0	.0	.0	8.4	
1-2	1.2	20.5	4.8	.0	.0	.0	26.5	
3-4	.0	10.8	8.4	2.4	.0	.0	21.7	
5-6	.0	.0	7.2	2.4	.0	.0	9.6	
7	1.2	1.2	2.4	6.0	.0	.0	10.8	
8-9	.0	.0	1.2	1.2	.0	.0	2.4	
10-11	.0	.0	1.2	3.6	3.6	.0	8.4	
12	.0	.0	.0	.0	2.4	.0	2.4	
13-16	.0	.0	.0	1.2	3.6	1.2	6.0	
17-19	.0	.0	.0	.0	1.2	1.2	2.4	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	1.2	1.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								83
TOT PCT	7.2	36.1	25.3	16.9	10.8	3.6	100.0	

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	4.3	5.4	1.1	1.1	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	4
6-7	.0	1.1	6.5	6.5	3.2	2.2	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	5
8-9	.0	.0	1.1	1.1	2.2	2.2	2.2	1.1	1.1	.0	.0	1.1	.0	1.1	1.1	.0	.0	.0	.0	13	14
10-11	.0	1.1	2.2	.0	2.2	.0	.0	.0	1.1	2.2	1.1	3.2	2.2	.0	.0	.0	.0	.0	.0	14	15
12-13	.0	.0	.0	.0	3.2	.0	.0	1.1	5.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	12
>13	.0	.0	.0	.0	1.1	3.2	1.1	1.1	5.4	1.1	.0	2.2	3.2	1.1	1.1	.0	.0	.0	.0	19	18
INDET	.0	.0	3.2	1.1	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	5
TOTAL	0	6	17	9	14	7	6	3	12	3	1	6	5	2	2	0	0	0	0	93	11
PCT	.0	6.5	18.3	9.7	15.1	7.5	6.5	3.2	12.9	3.2	1.1	6.5	5.4	2.2	2.2	.0	.0	.0	.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1904-1977
(OVER-ALL) 1859-1977

AREA 0031 FOVEAUX STRAIT
46.7S 166.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	13.4	9.4	8.7	.0	.0	.0	.0	26.0	3.1	.0	3.1	.0	.0		.0	67.7
NE	.8	.0	.0	.0	.0	.0	.0	.8	3.0	.0	.0	.0	.0		.0	96.2
E	2.6	.0	6.1	.0	.0	.0	.0	8.8	.0	.0	.0	.0	3.5		.0	87.7
SE	.0	10.2	5.1	.0	.0	.0	.0	15.3	.0	.0	.0	.0	.0		.0	84.7
S	7.4	1.9	1.9	.0	.0	.0	.0	11.1	3.7	.0	3.7	.0	.0		.0	81.5
SW	1.4	2.8	5.6	.0	.0	.0	.0	9.9	.0	.0	.0	.0	.0		.0	90.1
W	9.6	16.3	2.2	.0	.0	.0	.0	28.1	4.4	.0	1.5	.0	.0		.0	65.9
NW	10.0	13.3	2.9	.0	.0	.0	.0	25.7	10.5	.0	1.0	.0	.0		.0	62.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	14.3	.0	.0	.0	.0	14.3	.0	.0	.0	.0	.0		.0	85.7
TOT PCT	6.5	7.3	4.1	.0	.0	.0	.0	17.1	4.1	.0	1.2	.0	.4		.0	77.2
TOT OBS:	246															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	13.2	2.9	7.4	.0	.0	.0	.0	20.6	5.9	.0	.0	.0	.0		.0	73.5
06&09	1.5	10.3	2.9	.0	.0	.0	.0	14.7	2.9	.0	2.9	.0	.0		.0	79.4
12&15	7.1	7.1	2.4	.0	.0	.0	.0	16.7	.0	.0	2.4	.0	.0		.0	81.0
18&21	4.1	8.1	2.7	.0	.0	.0	.0	14.9	6.8	.0	.0	.0	1.4		.0	77.0
TOT PCT	6.3	7.1	4.0	.0	.0	.0	.0	16.7	4.4	.0	1.2	.0	.4		.0	77.4
TOT OBS:	252															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.3	5.9	2.1	2.9	.6	.2		13.1	14.9	12.9	20.0	10.9	15.2	20.5	.0	6.9	16.7
NE	.3	5.1	4.3	1.7	1.8	.0		13.2	16.6	12.9	20.0	17.2	7.1	21.5	.0	9.3	6.0
E	1.1	2.8	4.0	1.1	2.0	.6		10.9	17.7	6.6	20.0	14.1	1.8	14.0	.0	19.4	3.6
SE	1.6	.3	2.5	1.0	.4	.0		5.8	15.6	6.8	5.0	7.3	7.1	2.0	16.7	5.2	4.8
S	.5	2.5	2.9	3.6	1.5	.1		10.6	20.2	14.6	15.0	8.3	13.4	6.0	16.7	6.0	15.5
SW	.0	3.1	3.1	1.4	1.1	.1		8.9	17.3	12.4	5.0	5.2	15.2	3.5	.0	7.7	10.7
W	.2	3.5	4.1	2.8	1.3	.6		14.5	19.1	12.6	15.0	18.2	16.1	10.5	.0	13.7	26.2
NW	.7	5.9	5.6	4.6	2.1	1.3		20.2	21.0	17.9	.0	12.5	20.5	22.0	66.7	28.6	16.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.8							2.8	.0	3.0	.0	6.3	3.6	.0	.0	3.2	.0
TOT OBS	27	92	99	61	34	7	316		17.7	99	5	48	28	50	3	62	21
TOT PCT	8.5	29.1	30.1	19.3	10.8	2.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.4	5.4	1.8	1.9	.6		13.1	14.9	13.2	12.5	19.3	9.3
NE	1.6	6.8	2.5	1.6	.8		13.2	16.6	13.2	13.5	20.3	8.4
E	2.3	3.2	3.1	1.5	.8		10.9	17.7	7.2	9.5	13.2	15.4
SE	1.6	1.6	1.7	.6	.3		5.8	15.6	6.7	7.2	2.8	5.1
S	1.8	2.2	3.6	2.4	.6		10.6	20.2	14.7	10.2	6.6	8.4
SW	1.8	2.8	2.9	1.2	.2		8.9	17.3	12.3	8.9	3.3	8.4
W	2.1	3.5	6.4	1.7	.8		14.5	19.1	12.7	17.4	9.9	16.9
NW	2.5	7.7	4.7	2.8	2.6		20.2	21.0	17.1	19.5	24.5	23.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.8						2.8	.0	2.9	5.3	.0	2.4
TOT OBS	43	105	84	43	21	316		17.7	104	76	53	83
TOT PCT	19.9	33.2	26.6	13.6	6.6		100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1904-1977
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00603	2.9	6.7	25.0	27.9	26.9	8.7	1.9	17.9	100.0	104
06609	5.3	7.9	26.3	34.2	13.2	10.5	2.6	16.5	100.0	76
12615	.0	1.9	34.0	34.0	15.1	13.2	1.9	18.7	100.0	53
18621	2.4	4.8	33.7	26.5	18.1	12.0	2.4	17.8	100.0	83
TOT	9	18	92	95	61	34	7	17.7		316
PCT	2.8	5.7	29.1	30.1	19.3	10.8	2.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.0	.6	6.2	3.8		5.5
NE	1.8	3.4	4.2	5.0		5.7
E	1.4	2.4	6.2	3.8		6.0
SE	.0	2.4	2.2	.8		5.6
S	.0	.0	7.9	2.4		6.5
SW	.0	.4	6.2	2.2		6.6
W	.8	2.0	3.4	4.6		6.2
NW	2.6	2.4	8.3	6.9		6.1
VAR	.0	.0	.0	.0		.0
CALM	.0	1.6	1.6	.0		5.2
TOT OBS	12	19	58	37	126	6.0
TOT PCT	9.5	15.1	46.0	29.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	2.0	4.6	.8	.0	.0	.0	.0	6.2	
NE	.0	.0	.0	.2	.8	5.8	.8	.0	.0	.0	6.7	
E	.0	.0	.0	1.2	4.0	3.0	.0	.0	.0	.0	5.6	
SE	.0	.0	.0	1.0	1.0	1.0	.0	.0	.0	.0	2.4	
S	.0	.0	.8	.8	5.0	2.2	.8	.0	.0	.0	.8	
SW	.8	.0	.2	2.0	3.0	.8	1.6	.0	.0	.0	.4	
W	.0	.0	1.2	4.0	1.4	.6	.0	.8	.0	.0	2.8	
NW	.0	.0	1.0	4.0	6.5	.2	1.6	.8	.0	.0	6.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	1.6	
TOT OBS	1	0	4	10	35	18	6	2	0	0	41	125
TOT PCT	.8	.0	3.2	13.1	27.8	14.3	4.8	1.6	.0	.0	32.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.8	.8	.8	.8	.8	.8	.8	.8
= OR >5000	1.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3
= OR >3500	6.2	7.7	7.7	7.7	7.7	7.7	7.7	7.7
= OR >2000	17.7	20.8	21.5	21.5	21.5	21.5	21.5	21.5
= OR >1000	34.6	46.9	49.2	49.2	49.2	49.2	49.2	49.2
= OR >600	40.8	60.0	63.8	63.8	63.8	63.8	63.8	63.8
= OR >300	40.8	61.5	66.9	66.9	66.9	66.9	66.9	66.9
= OR >150	40.8	61.5	66.9	66.9	66.9	66.9	66.9	66.9
= OR > 0	41.5	62.3	67.7	67.7	67.7	67.7	67.7	67.7
TOTAL	54	81	88	88	88	88	88	88

TOTAL NUMBER OF OBS: 130 PCT FREQ NH <5/8: 32.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.1	3.6	7.2	2.2	9.4	4.3	20.1	21.4	20.9	.7	139

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.8	
	TOT %	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.8	
1/2<1	PCP	.7	.0	.0	.0	.0	.0	.0	.5	.0	.0	1.2	
	NO PCP	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	TOT %	1.1	.0	.0	.0	.0	.0	.0	.5	.0	.0	1.6	
1<2	PCP	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
2<5	PCP	.0	.0	.0	.0	.4	.1	.3	.4	.0	.0	1.2	
	NO PCP	.0	.8	.0	.0	1.2	.2	.6	.0	.0	.0	2.8	
	TOT %	.0	.6	.0	.0	1.6	.3	.9	.4	.0	.0	4.1	
5<10	PCP	1.0	.0	.4	.6	.2	.6	2.9	2.7	.0	.0	8.5	
	NO PCP	4.1	5.5	3.7	2.9	3.6	3.2	4.8	7.7	.0	.8	36.2	
	TOT %	5.1	5.5	4.1	3.6	3.8	3.8	7.7	10.5	.0	.8	44.7	
10+	PCP	1.2	.1	.6	.3	.6	.4	.6	1.8	.0	.4	6.1	
	NO PCP	5.1	6.1	6.6	2.1	5.0	3.2	4.5	8.1	.0	1.6	42.3	
	TOT %	6.3	6.2	7.2	2.4	5.6	3.6	5.1	10.0	.0	2.0	48.4	
TOT OBS													246
TOT PCT		12.9	13.3	11.3	6.0	11.0	7.6	13.7	21.3	.0	2.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.8	.0	.0	.0	.0	.0	.0	.0		.8	
	TOT %	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.8	
1/2<1	0-3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.4	.0		.4	
	22+	.7	.0	.0	.0	.0	.0	.0	.1	.0		.8	
	TOT %	1.1	.0	.0	.0	.0	.0	.0	.5	.0	.0	1.6	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.4	.0	.0	.0	.0	.0	.0	.0	.0		.4	
	TOT %	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.4	.0	.0	.0	.0		.4	
	11-21	.0	.0	.0	.0	.4	.0	.0	.0	.0		.4	
	22+	.0	.8	.0	.0	.8	.3	.9	.4	.0		3.3	
	TOT %	.0	.8	.0	.0	1.6	.3	.9	.4	.0	.0	4.1	
5<10	0-3	.0	.2	.2	1.4	.2	.0	.0	.8	.0	.8	3.7	
	4-10	2.7	2.4	.6	.0	1.0	1.2	1.8	2.1	.0		11.8	
	11-21	1.1	1.8	1.2	1.5	.7	1.2	4.6	2.4	.0		14.6	
	22+	1.2	1.0	2.0	.6	1.8	1.3	1.5	5.1	.0		14.6	
	TOT %	5.1	5.5	4.1	3.6	3.8	3.8	7.7	10.5	.0	.8	44.7	
10+	0-3	.0	.2	1.0	.4	.4	.0	.3	.1	.0	2.0	4.5	
	4-10	2.9	2.7	2.2	.4	1.6	2.2	1.2	4.5	.0		17.9	
	11-21	1.1	1.8	2.8	1.0	1.2	.9	1.8	3.5	.0		14.2	
	22+	2.2	1.4	1.1	.6	2.3	.4	1.7	1.9	.0		11.8	
	TOT %	6.3	6.2	7.2	2.4	5.6	3.6	5.1	10.0	.0	2.0	48.4	
TOT OBS													246
TOT PCT		12.9	13.3	11.3	6.0	11.0	7.6	13.7	21.3	.0	2.8	100.0	

AUGUST

PERIOD: (PRIMARY) 1904-1977
(OVER-ALL) 1859-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	6.4	14.9	34.0	19.1	4.3	.0	.0	.0	78.7	21.3	47
06&09	.0	.0	2.8	13.9	22.2	19.4	8.3	2.8	2.8	.0	72.2	27.8	36
12&15	.0	.0	.0	10.0	20.0	5.0	.0	.0	.0	.0	35.0	65.0	20
18&21	3.3	.0	.0	16.7	26.7	3.3	6.7	3.3	.0	.0	60.0	40.0	30
TOT	1	0	4	19	36	18	7	2	1	0	88	45	133
PCT	.8	.0	3.0	14.3	27.1	13.5	5.3	1.5	.8	.0	66.2	33.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.0	1.4	1.4	2.9	37.7	56.5	69
06&09	.0	1.4	.0	5.8	49.3	43.5	69
12&15	2.4	2.4	.0	7.3	41.5	46.3	41
18&21	1.4	1.4	.0	2.7	45.9	48.6	74
TOT	2	4	1	11	111	124	253
PCT	.8	1.6	.4	4.3	43.9	49.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	6.5	21.7	58.7	19.6	46
06&09	.0	2.8	19.4	52.8	27.8	36
12&15	.0	.0	16.7	22.2	61.1	18
18&21	3.3	3.3	23.3	36.7	40.0	30
TOT	1	5	27	61	42	130
PCT	.8	3.8	20.8	46.9	32.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.0	.6	.0	.0	.0	1	.6
55/59	.0	.0	.0	.6	.6	1.1	1.1	.0	6	3.3
50/54	.0	.0	.6	.0	4.4	4.4	14.4	8.9	59	32.8
45/49	.0	.0	.0	2.2	5.0	9.4	17.8	14.4	88	48.9
40/44	.0	.0	.0	.0	1.1	1.7	8.3	1.1	22	12.2
35/39	.0	.0	.0	.6	.0	.6	.6	.6	4	2.2
TOTAL	0	0	1	4	21	31	76	45	180	100.0
PCT	.0	.0	.6	3.9	11.7	17.2	42.2	25.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.6	.0	.0
1.1	.6	.0	.6	.0	.0	.0	1.1	.0	.0
7.5	3.6	3.1	1.3	.4	1.3	2.6	11.4	.0	1.7
3.9	9.4	6.0	2.6	8.2	4.0	7.6	7.1	.0	.0
.6	1.7	3.3	1.7	2.8	1.7	.6	.0	.0	.0
.0	.0	.6	.6	.0	.6	.0	.6	.0	.0
13.1	15.3	12.9	6.7	11.4	7.5	10.8	20.7	.0	1.7

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	63	59	55	49	44	39	39	49.0	106
06&09	57	56	53	48	41	38	38	47.7	78
12&15	61	60	55	49	43	43	43	48.3	50
18&21	57	56	54	48	42	38	38	47.6	84
TOT	63	57	54	48	43	39	38	48.2	318

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.8	17.3	19.2	44.2	15.4	81	52
06&09	.0	6.4	8.5	14.9	51.1	19.1	83	47
12&15	.0	3.3	6.7	20.0	33.3	36.7	85	30
18&21	.0	3.6	10.9	14.5	38.2	32.7	85	55
TOT	0	8	21	31	78	46	83	184

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PERIOD: (PRIMARY) 1904-1977
(OVER-ALL) 1859-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.5	.0	1	.0	.5
9/10	.0	.0	.0	.0	.5	.0	1	.0	.5
7/8	.0	.0	.0	.5	1.1	.5	4	.0	2.1
6	.0	.0	.0	1.1	.5	.0	3	.0	1.6
5	.0	.0	.0	2.6	.5	.0	6	.0	3.2
4	.0	.0	.5	3.7	1.1	.0	10	.0	5.3
3	.0	.0	1.1	4.2	.0	.0	10	.0	5.3
2	.0	.0	6.8	3.2	1.6	.0	22	.0	11.6
1	.0	.0	2.1	6.8	2.6	.0	22	.5	11.1
0	.0	.0	10.0	5.3	1.1	.0	31	.5	15.8
-1	.0	1.6	1.1	3.7	.5	.0	13	.0	6.8
-2	.0	.5	6.3	3.7	1.1	.0	22	.0	11.6
-3	.0	.5	4.2	2.1	.0	.0	13	.0	6.8
-4	.0	1.1	4.2	.0	.0	.0	10	.0	5.3
-5	.0	1.6	4.7	.0	.0	.0	12	.0	6.3
-6	.0	1.6	1.1	.0	.0	.0	5	.0	2.6
-7/-8	1.1	.5	.0	.0	.0	.0	3	.0	1.6
-9/-10	.0	1.1	.0	.0	.0	.0	2	.0	1.1
TOTAL	2		80		21		2		184
		16		70		1	190		
PCT	1.1	8.4	42.1	36.8	11.1	.5	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	3.2	.7	.0	.0	.0	4.0
3-4	.0	.0	.7	.0	.0	.0	.7
5-6	.0	.5	.0	1.3	.0	.0	1.8
7	.0	.0	1.8	.5	.0	.0	2.3
8-9	.0	.0	.0	2.2	.0	.0	2.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.7	.0	.7
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.5	.5
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.9	3.2	4.0	.7	.5	13.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7
1-2	.2	.5	.2	.0	.0	.0	.9
3-4	.0	2.5	.9	.0	.0	.0	3.4
5-6	.0	.0	.0	.9	.7	.0	1.6
7	.0	.7	.0	1.4	.0	.0	2.2
8-9	.0	.0	.0	.0	1.4	.0	1.4
10-11	.0	.0	.0	.0	.7	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.7	.0	.7
17-19	.0	.0	.0	.0	.2	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.5	1.1	2.3	3.8	.0	11.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.5	1.3	1.1	.0	.0	.0	2.9
3-4	.0	2.5	3.2	.0	.0	.0	5.8
5-6	.0	.7	.7	.7	.0	.0	2.2
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.7	.0	.0	.7
10-11	.0	.0	.0	.0	.7	.0	.7
12	.0	.0	.0	.0	1.4	.0	1.4
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.7	.5	.0	1.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.5	5.0	4.2	2.7	.0	16.9

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.2	.0	.0	.0	.2
3-4	.0	.7	.9	.0	.0	.0	1.6
5-6	.0	.0	.7	1.4	.0	.0	2.2
7	.0	.0	.9	.2	.0	.0	1.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.7	.0	.7
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	2.7	1.6	.9	.0	5.9

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

AREA 0831 FOVEAUX STRAIT 46.7S 166.2E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.4	.0	.0	.0	.0	1.4
1-2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	1.3	1.4	.7	.0	.0	3.4
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	1.3	1.3	1.4	.0	4.0
8-9	.0	.0	.0	.0	.7	.0	.7
10-11	.0	.0	.0	.0	.5	.0	.5
12	.0	.0	.0	.5	.0	.0	.5
13-16	.0	.0	.0	.7	.7	.0	1.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.7	2.7	3.2	3.4	.0	12.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.6	.0	.0	.0	.0	1.6
1-2	.0	.0	.2	.0	.0	.0	.2
3-4	.0	.9	.0	.0	.0	.0	.9
5-6	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.7	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.4	.0	.4
17-19	.0	.7	.0	.0	.0	.0	.7
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.2	.2
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.2	.9	.4	1.1	.2	5.8

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.5	.0	.0	.0	.0	1.1
1-2	.0	.0	.5	.0	.0	.0	.5
3-4	.0	.0	2.0	.0	.0	.0	2.0
5-6	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.0	.0	.5	.0	.5
8-9	.0	.0	.0	.7	.0	.0	.7
10-11	.0	.0	.0	.0	.7	.0	.7
12	.0	.0	.0	.5	.0	.0	.5
13-16	.0	.0	.5	.0	1.1	.0	1.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	1.3	1.3	2.6
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	.5	3.8	1.3	2.3	1.3	9.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	1.1	.0	.0	.0	.0	1.3	
1-2	.0	2.2	.7	.0	.0	.0	2.9	
3-4	.0	2.2	2.3	.0	.0	.0	4.5	
5-6	.0	.2	2.9	.7	.0	.0	3.8	
7	.0	.0	1.1	3.1	.2	.0	4.3	
8-9	.0	.0	.0	.7	.7	.0	1.4	
10-11	.0	.0	.0	.0	.7	.7	1.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.2	.0	.7	.0	.9	
17-19	.0	.0	.0	.0	.0	.2	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	2.2	2.2	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	5.6	7.2	4.5	2.3	3.1	22.8	96.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.3	7.1	.0	.0	.0	.0	11.4	
1-2	.7	7.1	3.6	.0	.0	.0	11.4	
3-4	.0	10.0	11.4	.7	.0	.0	22.1	
5-6	.0	1.4	5.7	5.0	.7	.0	12.9	
7	.0	.7	5.0	6.4	2.1	.0	14.3	
8-9	.0	.0	.0	4.3	3.6	.0	7.9	
10-11	.0	.0	.0	.0	3.6	.7	4.3	
12	.0	.0	.0	1.4	2.1	.0	3.6	
13-16	.0	.0	.7	.7	4.3	.0	5.7	
17-19	.0	.7	.0	.7	.7	.7	2.9	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	3.6	3.6	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.0	27.1	26.4	19.3	17.1	5.0	100.0	140

PERIOD: (OVER-ALL) 1951-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	1.3	1.3	3.3	5.3	2.0	.7	1.3	1.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	8
6-7	.0	.0	.7	2.6	3.3	.7	2.0	2.0	.7	.7	.0	.0	1.3	.7	.0	.0	.0	.0	.0	22	11
8-9	.0	.0	2.6	4.6	2.0	1.3	2.0	2.6	2.6	2.0	1.3	.0	.0	1.3	.0	.0	.0	.0	.0	34	11
10-11	.0	.7	.7	.7	1.3	.0	1.3	1.3	5.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	11
12-13	.0	.0	.7	.0	.0	.7	.7	.7	2.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	12
>13	.0	.0	.0	.7	4.6	2.0	5.3	3.9	.7	1.3	.7	.0	.0	.0	.0	.0	.0	.0	.0	29	10
INDET	2.6	.0	.7	.7	.0	1.3	.7	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	7
TOTAL	4	3	10	19	25	12	19	18	19	15	3	0	2	3	0	0	0	0	0	152	10
PCT	2.6	2.0	6.6	12.5	16.4	7.9	12.5	11.8	12.5	9.9	2.0	.0	1.3	2.0	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1885-1977
(OVER-ALL) 1858-1977

AREA 0031 FOVEAUX STRAIT
46.8S 167.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	8.1	.0	3.7	.0	.0	.0	.0	11.8	2.5	.0	7.5	.0	.0	.0	.0	78.3
NE	3.2	.0	5.3	.0	.0	.0	.0	8.6	.0	.0	15.0	4.3	.0	.0	.0	72.2
E	8.8	.0	2.9	.0	.0	.0	.0	8.8	5.1	.0	8.8	2.9	.0	.0	.0	74.3
SE	6.5	5.2	.0	.0	.0	.0	.0	11.7	1.3	.0	.0	.0	.0	.0	.0	87.0
S	12.8	.0	.0	.0	.0	.0	.0	12.8	4.7	.0	4.7	.0	.0	.0	3.5	74.4
SW	4.3	24.5	.0	.0	.0	.0	2.1	30.9	4.8	.0	.0	.0	.0	.0	.5	63.8
W	3.9	22.0	1.2	.0	.0	.0	.0	27.2	1.2	.0	.8	.0	.0	1.2	.0	69.7
NW	5.4	22.7	2.5	.0	.0	.0	.0	30.5	2.0	.0	6.9	.0	.5	.0	.0	60.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	5.8	11.6	2.1	.0	.0	.0	.3	19.5	2.4	.0	5.5	.9	.3	.3	.3	71.0
TOT OBS:	328															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	4.2	8.3	4.2	.0	.0	.0	.0	16.7	4.2	.0	8.3	.0	.0	.0	.0	70.8
06&09	5.9	10.1	4.2	.0	.0	.0	.8	27.1	2.5	.0	3.4	.8	.0	.0	.8	65.3
12&15	8.7	10.1	2.9	.0	.0	.0	.0	21.7	.0	.0	2.9	.0	1.4	.0	.0	73.9
18&21	9.4	9.4	4.2	.0	.0	.0	.0	21.9	2.1	.0	7.3	2.1	.0	.0	.0	66.7
TOT PCT	7.0	11.5	3.9	.0	.0	.0	.3	22.5	2.3	.0	5.4	.6	.3	.3	.3	68.5
TOT OBS:	355															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.0	4.3	3.9	1.5	1.4	.0		11.1	17.0	12.2	7.7	7.4	11.3	12.8	.0	12.8	12.5
NE	.2	5.0	5.9	1.5	1.3	.0		14.0	15.6	19.9	15.4	11.5	10.4	16.3	.0	15.9	5.5
E	.2	3.4	4.3	1.0	.8	.0		9.7	15.3	10.1	21.2	10.3	9.2	3.1	.0	13.5	12.5
SE	.5	2.5	3.0	1.2	.0	.0		7.2	13.5	7.4	9.6	11.9	5.0	9.7	.0	1.0	8.3
S	.0	2.1	3.0	1.2	1.1	.0		7.5	18.3	6.4	.0	8.0	8.3	7.2	12.5	10.8	2.8
SW	.0	3.9	5.4	1.7	2.3	.0		13.2	18.5	7.1	17.3	17.6	22.5	12.5	54.2	3.7	13.9
W	.4	5.1	8.0	4.1	1.7	.0		19.2	17.9	16.9	21.2	21.5	21.3	18.1	33.3	17.9	19.1
NW	.1	4.3	5.4	5.0	1.7	.0		16.6	19.5	18.6	7.7	11.9	12.1	16.8	.0	21.6	25.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4							1.4	.0	1.4	.0	.0	.0	3.8	.0	2.7	.0
TOT OBS	12	129	163	73	44	0	421		17.0	74	13	78	80	80	6	74	36
TOT PCT	2.9	30.6	38.7	17.3	10.5	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.7	5.2	1.9	1.8	.5		11.1	17.0	11.5	9.1	11.9	12.7
NE	1.9	7.1	3.0	1.7	.2		14.0	15.6	19.3	11.1	15.1	12.5
E	1.8	4.2	2.4	1.2	.0		9.7	15.3	11.8	9.8	2.9	13.2
SE	1.4	3.8	1.3	.8	.0		7.2	13.5	7.8	8.9	9.0	3.4
S	1.0	3.0	2.3	.9	.4		7.5	18.3	5.5	8.2	7.6	8.2
SW	1.0	6.1	3.4	2.3	.5		13.2	18.5	8.6	19.7	15.4	7.0
W	1.1	7.9	6.8	2.7	.7		19.2	17.9	17.5	21.4	19.2	18.0
NW	1.5	5.6	4.4	4.8	.2		16.6	19.5	17.0	12.0	15.4	23.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.4						1.4	.0	1.1	.0	3.5	1.8
TOT OBS	54	181	107	68	11	421		17.0	87	138	86	110
TOT PCT	12.8	43.0	25.4	16.2	2.6		100.0		100.0	100.0	100.0	100.0

SEPTEMBER

PERIOD: (PRIMARY) 1885-1977
(OVER-ALL) 1858-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.1	4.6	17.2	52.9	16.1	8.0	.0	17.4	100.0	87
06&09	.0	.0	29.7	37.7	21.7	10.9	.0	18.4	100.0	138
12&15	3.5	1.2	29.1	40.7	14.0	11.6	.0	16.3	100.0	86
18&21	1.8	.9	43.6	27.3	15.5	10.9	.0	15.6	100.0	110
TOT	6	6	129	163	73	44	0	17.0		421
PCT	1.4	1.4	30.6	38.7	17.3	10.5	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.8	.0	4.5	5.9		6.9
NE	.0	4.7	5.5	5.9		5.9
E	.8	2.3	3.7	5.3		6.2
SE	.0	.8	2.7	.4		6.5
S	.0	.4	2.1	6.4		6.9
SW	1.8	2.9	5.5	1.8		5.2
W	2.9	3.9	10.4	2.5		5.2
NW	.2	1.2	5.5	6.3		6.8
VAR	.0	.0	.0	.0		.0
CALM	.0	.8	.0	.8		5.5
TOT OBS	10	22	51	45	128	6.0
TOT PCT	7.8	17.2	39.8	35.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.0	.0	.6	.8	1.4	.8	.8	.0	.0	1.6	5.3	
2.7	.0	.0	.0	3.3	2.3	1.0	.0	.0	.0	7.4	
1.2	.0	.0	.8	1.6	2.9	.6	.0	.0	.0	5.1	
.4	.0	.0	.0	1.8	1.0	.0	.0	.0	.0	.8	
2.7	.0	.0	.8	2.1	1.4	.0	.8	.8	.0	1.2	
.0	.0	1.6	1.4	1.6	1.8	.0	.0	.8	.0	4.7	
.0	.0	.0	2.7	5.1	1.4	.8	.0	.0	.8	9.0	
.0	.0	.2	2.0	5.1	3.3	.0	.0	.8	.0	1.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.8	
9	0	3	12	28	19	4	1	3	3	46	128
7.0	.0	2.3	9.4	21.9	14.8	3.1	.8	2.3	2.3	35.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	2.3	4.5	4.5	4.5	4.5	4.5	4.5	4.5
= OR >5000	3.0	5.3	5.3	5.3	5.3	5.3	5.3	5.3
= OR >3500	6.8	9.0	9.8	9.8	9.8	9.8	9.8	9.8
= OR >2000	15.0	21.1	24.1	24.1	24.8	24.8	24.8	24.8
= OR >1000	26.3	40.6	45.1	45.9	46.6	46.6	46.6	46.6
= OR >400	32.3	48.1	54.1	54.9	55.6	55.6	55.6	55.6
= OR >300	32.3	49.6	55.6	57.1	57.9	57.9	57.9	57.9
= OR >150	32.3	49.6	55.6	57.1	57.9	57.9	57.9	57.9
= OR > 0	33.1	51.9	60.2	62.4	63.9	63.9	64.7	64.7
TOTAL	44	69	80	83	85	85	86	86

TOTAL NUMBER OF OBS: 133 PCT FREQ NH <5/8: 35.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
4.9	2.8	9.2	9.9	9.2	2.8	13.4	19.0	22.5	6.3	142

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.2	.2	.0	.0	.0	.2	.1	.0	.0	.6	
	TOT %	.0	.2	.2	.0	.0	.0	.2	.1	.0	.0	.6	
1/2<1	PCP	.0	.6	.0	.0	.0	.9	.5	.8	.0	.0	2.7	
	NO PCP	1.2	1.4	.5	.0	.0	.0	.2	1.1	.0	.0	4.3	
	TOT %	1.2	2.0	.5	.0	.0	.9	.6	1.8	.0	.0	7.0	
1<2	PCP	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.6	
	TOT %	.0	.0	.6	.0	.0	.3	.0	.0	.0	.0	.9	
2<5	PCP	.0	.0	.0	.1	.5	.0	.0	.6	.0	.0	1.2	
	NO PCP	.3	1.2	.0	.0	.7	.2	.0	1.2	.0	.0	3.6	
	TOT %	.3	1.2	.0	.1	1.2	.2	.0	1.8	.0	.0	4.9	
5<10	PCP	1.1	.4	.9	.7	.5	3.2	4.8	2.7	.0	.0	14.3	
	NO PCP	4.6	6.6	4.6	1.8	2.5	5.3	6.6	4.8	.0	.6	37.4	
	TOT %	5.6	7.0	5.5	2.5	3.0	8.5	11.4	7.5	.0	.6	51.7	
10+	PCP	.4	.2	.0	.0	.0	.0	.0	.6	.0	.0	1.2	
	NO PCP	4.7	3.6	3.6	3.3	2.5	4.3	7.1	3.6	.0	.9	33.7	
	TOT %	5.1	3.9	3.6	3.3	2.5	4.3	7.1	4.2	.0	.9	35.0	
	TOT OBS												329
	TOT PCT	12.2	14.2	10.3	5.9	6.8	14.3	19.3	15.4	.0	1.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.2	.1	.0		.3	
	11-21	.0	.1	.1	.0	.0	.0	.0	.0	.0		.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.1	.1	.0	.0	.0	.2	.1	.0	.0	.6	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	1.0	.4	.0	.0	.0	.0	.6	.0		2.1	
	11-21	.3	.9	.0	.0	.0	.6	.6	.9	.0		3.3	
	22+	.9	.0	.0	.0	.0	.3	.0	.3	.0		1.5	
	TOT %	1.2	1.9	.4	.0	.0	.9	.6	1.8	.0	.0	6.9	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.3	.0	.0	.0	.0	.0	.0		.3	
	22+	.0	.0	.3	.0	.0	.3	.3	.0	.0		.9	
	TOT %	.0	.0	.6	.0	.0	.3	.3	.0	.0	.0	1.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.6	.0	.0	.0	.0	.0	.3	.0		.9	
	11-21	.0	.3	.0	.1	.5	.3	.0	.0	.0		1.2	
	22+	.3	.3	.0	.0	1.0	.5	.0	1.5	.0		3.6	
	TOT %	.3	1.2	.0	.1	1.5	.8	.0	1.8	.0	.0	5.7	
5<10	0-3	.0	.0	.2	.4	.0	.0	.1	.1	.0	.6	1.5	
	4-10	1.6	1.6	1.3	1.2	1.0	2.8	2.0	2.0	.0		13.8	
	11-21	2.9	3.0	1.9	.5	1.0	3.0	3.8	1.8	.0		18.0	
	22+	1.0	2.2	1.9	.4	1.0	2.5	5.2	3.4	.0		17.7	
	TOT %	5.5	6.9	5.4	2.5	3.0	8.4	11.2	7.4	.0	.6	50.9	
10+	0-3	.0	.3	.0	.3	.0	.0	.3	.0	.0	.9	1.8	
	4-10	2.2	1.3	1.6	1.0	1.0	1.0	2.4	1.0	.0		11.7	
	11-21	1.6	2.3	1.9	1.0	1.1	2.9	3.4	1.9	.0		16.2	
	22+	1.1	.2	.1	.9	.3	.3	.9	1.2	.0		5.1	
	TOT %	5.0	4.1	3.6	3.3	2.5	4.3	7.0	4.1	.0	.9	34.7	
	TOT OBS												334
	TOT PCT	12.1	14.3	10.2	5.8	7.0	14.7	19.3	15.2	.0	1.5	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	5.0	.0	.0	5.0	17.5	10.0	7.5	2.5	5.0	5.0	57.5	42.5	40
06&09	.0	.0	2.2	6.5	23.9	28.3	.0	.0	2.2	2.2	65.2	34.8	46
12&15	8.7	.0	8.7	17.4	17.4	4.3	4.3	.0	.0	.0	60.9	39.1	23
18&21	17.9	.0	.0	10.7	25.0	7.1	7.1	.0	.0	.0	67.9	32.1	28
TOT	9	0	3	12	29	20	6	1	3	3	86	51	137
PCT	6.6	.0	2.2	8.8	21.2	14.6	4.4	.7	2.2	2.2	62.8	37.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.4	6.8	.0	6.8	37.8	47.3	74
06&09	.8	6.7	.8	6.7	56.3	28.6	119
12&15	2.9	7.1	1.4	4.3	47.1	37.1	70
18&21	.0	5.1	2.0	5.1	60.2	27.6	98
TOT	4	23	4	21	187	122	361
PCT	1.1	6.4	1.1	5.8	51.8	33.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	5.1	5.1	15.4	43.6	41.0	39
06&09	.0	2.3	15.9	52.3	31.8	44
12&15	9.1	18.2	40.9	22.7	36.4	22
18&21	17.9	21.4	35.7	32.1	32.1	28
TOT	9	13	32	54	47	133
PCT	6.8	9.8	24.1	40.6	35.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.0	.6	.0	.0	.0	1	.6
55/59	.0	.0	.0	.0	.6	3.5	1.8	.0	10	5.8
50/54	.0	.0	.0	.0	4.7	9.4	16.4	9.9	69	40.4
45/49	.0	.0	.0	.6	1.8	8.8	21.6	15.8	83	48.5
40/44	.0	.0	.0	.0	.6	.0	1.2	2.9	8	4.7
TOTAL	0	0	0	1	14	37	70	49	171	100.0
PCT	.0	.0	.0	.6	8.2	21.6	40.9	28.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.4	.1	.0	.0
1.2	.6	1.3	.4	.6	.0	.6	1.2	.0	.0
5.4	5.3	2.5	2.8	2.0	5.1	8.9	7.2	.0	1.2
3.7	8.0	3.4	1.8	5.7	4.5	11.4	8.9	.0	1.2
.6	.6	.6	.4	1.2	.7	.6	.0	.0	.0
10.8	14.5	7.7	5.4	9.5	10.4	21.9	17.4	.0	2.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	59	58	56	50	46	43	43	50.3	86
06&09	61	59	54	49	44	41	41	49.1	133
12&15	57	56	53	48	43	41	41	48.3	86
18&21	55	54	53	48	43	41	41	47.9	106
TOT	61	57	54	49	43	41	41	48.9	411

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	.0	7.1	54.8	26.2	11.9	79	42
06&09	.0	1.9	9.3	14.8	50.0	24.1	84	54
12&15	.0	.0	7.0	16.3	39.5	37.2	86	43
18&21	.0	.0	7.9	2.6	47.4	42.1	89	38
TOT	0	1	14	39	73	50	85	177

SEPTEMBER

PERIOD: (PRIMARY) 1885-1977
(OVER-ALL) 1858-1977

AREA 0031 FOVEAUX STRAIT
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.0	.3	1	.0	.3
9/10	.0	.0	.0	.3	.0	.0	1	.0	.3
7/8	.0	.0	1.7	1.0	.0	.0	8	.0	2.7
6	.0	.0	1.4	.7	.3	.0	7	.3	2.0
5	.0	.3	1.4	.7	.0	.0	7	.0	2.4
4	.0	.3	1.7	1.0	.0	.0	9	.3	2.7
3	.0	.3	4.1	3.4	.0	.0	23	.7	7.2
2	.0	1.7	5.1	1.4	.3	.0	25	.0	8.5
1	.0	3.1	6.9	.7	.3	.0	38	1.0	11.9
0	.0	5.1	6.5	.3	.0	.0	35	1.7	10.2
-1	.3	8.9	5.8	.0	.0	.0	44	.3	14.7
-2	.0	5.8	3.4	.0	.0	.0	27	.3	8.9
-3	.0	4.4	.7	.0	.0	.0	15	.7	4.4
-4	1.0	6.5	.3	.0	.0	.0	23	.3	7.5
-5	.7	4.1	.7	.0	.0	.0	16	.0	5.5
-6	1.4	.3	.0	.0	.0	.0	5	.0	1.7
-7/-8	2.0	.3	.0	.0	.0	.0	7	.0	2.4
-9/-10	.0	.7	.0	.0	.0	.0	2	.0	.7
TOTAL	16	123	122	29	3	1	293	17	276
PCT	5.5	42.0	41.6	9.6	1.0	.3	100.0	5.8	94.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.4	.0	.0	.0	.0	2.4
3-4	.0	.0	1.8	.0	.0	.0	1.8
5-6	.0	.9	1.8	.9	.0	.0	3.5
7	.0	.0	.0	.7	.0	.0	.7
8-9	.0	.0	.7	.7	.0	.0	1.3
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.9	.0	.0	.9
17-19	.0	.0	.0	.0	.9	.0	.9
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.3	4.9	3.1	.9	.0	11.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.8	2.0	.0	.0	.0	3.7
3-4	.0	.0	3.5	.0	.0	.0	3.5
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.4	.0	.0	.4
8-9	.0	.2	.0	.2	.0	.0	.4
10-11	.0	.0	.0	.9	.0	.0	.9
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	1.8	.0	1.8
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.0	5.5	1.5	1.8	.0	10.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.8	.0	.0	.0	.0	1.8
1-2	.7	3.5	2.4	.0	.0	.0	6.6
3-4	.0	.0	2.6	.0	.0	.0	2.6
5-6	.0	.0	.0	.9	.0	.0	.9
7	.0	.0	.0	.7	.0	.0	.7
8-9	.0	.7	.0	.0	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.9	5.0	1.5	.0	.0	13.2

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	1.1	1.8	.0	.0	.0	.0	2.9
3-4	.0	.9	.2	1.8	.0	.0	2.9
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.2	.2	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.9	.0	.0	.9
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	2.6	.4	2.9	.0	.0	7.0

PERIOD: (OVER-ALL) 1963-1977 SEPTEMBER AREA 0031 FOVEAUX STRAIT

TABLE 18 (CONT) 46.8S 167.8E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.4	.0	.0	.0	.0	2.4
1-2	.0	1.8	.9	.0	.0	.0	2.6
3-4	.0	.0	.7	.0	.0	.0	.7
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	2.2	.7	.9	.0	3.7
8-9	.0	.0	.0	.0	.9	.0	.9
10-11	.0	.0	.0	1.8	.0	.0	1.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.7	.0	.7
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.2	3.7	2.4	2.4	.0	12.7

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	2.6	.0	.0	.0	.0	2.6
3-4	.0	.9	1.1	.0	.0	.0	2.0
5-6	.0	.0	2.6	.9	.0	.0	3.5
7	.0	.0	3.1	.9	.0	.0	3.9
8-9	.0	.0	.0	.9	.0	.0	.9
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.9	.0	.9
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.2	.0	.2
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.7	4.8	2.6	1.1	.0	14.3

b

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.0	.0	.0	.0	.0	.9
1-2	.0	4.4	.0	.0	.0	.0	4.4
3-4	.0	.9	3.9	.0	.0	.0	4.8
5-6	.0	.0	1.8	.9	.0	.0	2.6
7	.0	.0	1.5	1.5	1.8	.0	4.8
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	1.5	.0	.7	.0	2.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.9	.0	.0	.9
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	5.3	8.8	3.3	2.4	.0	20.8

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	2.0	.0	.0	.0	.0	2.0	
3-4	.0	.0	.2	.0	.0	.0	.2	
5-6	.0	.9	.9	.0	.0	.0	1.8	
7	.0	.0	.0	1.1	.0	.0	1.1	
8-9	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.2	.9	.2	.0	1.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.9	.0	.0	.9	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.9	1.5	2.9	.2	.0	7.5	97.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.5	4.4	.0	.0	.0	.0	7.9	
1-2	1.8	20.2	5.3	.0	.0	.0	27.2	
3-4	.0	2.6	14.0	1.8	.0	.0	18.4	
5-6	.0	1.8	7.0	3.5	.0	.0	12.3	
7	.0	.0	7.0	6.1	2.6	.0	15.8	
8-9	.0	.9	.9	1.8	.9	.0	4.4	
10-11	.0	.0	1.8	4.4	.9	.0	7.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.9	1.8	.0	2.6	
17-19	.0	.0	.0	.9	1.8	.0	2.6	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.9	.0	.0	.9	
26-32	.0	.0	.0	.0	.9	.0	.9	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.3	29.8	36.0	20.2	8.8	.0	100.0	114

PERIOD: (OVER-ALL) 1951-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	4.8	3.4	2.7	4.8	1.4	.7	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	6
6-7	.0	.0	11.6	2.0	2.7	2.7	.0	1.4	2.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	35	6
8-9	.0	.7	1.4	4.8	4.8	4.1	4.1	.0	.0	.7	.0	1.4	1.4	.7	.0	.0	.0	.0	.0	35	10
10-11	.0	.7	.0	2.7	5.4	.0	.7	.0	2.7	2.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	22	10
12-13	.0	.0	.0	.0	.0	.0	.7	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	13
>13	.0	.0	.0	.0	.7	3.4	2.0	2.0	2.0	.0	.7	.7	.0	.7	.0	.0	.0	.0	.0	18	13
INDET	.7	.0	1.4	.7	.0	.7	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	5
TOTAL	1	9	26	19	27	18	12	5	15	4	3	4	2	2	0	0	0	0	0	147	8
PCT	.7	6.1	17.7	12.9	18.4	12.2	8.2	3.4	10.2	2.7	2.0	2.7	1.4	1.4	.0	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	10.4	.0	7.5	.0	.0	.0	3.0	20.9	9.0	.0	9.0	.0	.0		.0	61.2
NE	9.5	.0	.0	.0	.0	.0	.0	9.5	.0	.0	15.3	2.9	.0		.0	72.3
E	6.2	.0	6.2	.0	.0	.0	.0	12.3	6.2	.0	7.7	.0	.0		.0	73.8
SE	.0	4.9	9.8	.0	.0	.0	.0	14.6	9.8	.0	2.4	.0	.0		.0	73.2
S	4.6	5.7	11.5	.0	.0	.0	.0	21.8	4.6	.0	.0	.0	3.4		.0	70.1
SW	4.8	2.4	1.0	.0	.0	.0	3.9	12.1	6.3	.0	2.9	.0	2.4		.0	76.3
W	4.9	11.1	1.4	.0	.0	.0	2.4	19.8	4.9	1.4	6.3	.0	1.4		.0	67.7
NW	2.4	1.9	8.6	.0	.0	.0	.5	13.4	8.1	.0	10.0	.0	.0		.0	68.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	20.0	.0		.0	60.0
TOT PCT	5.4	4.0	4.4	.0	.0	.0	1.7	15.5	5.7	.3	7.4	.7	1.0		.0	69.7
TOT OBS:	297															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	10.8	2.7	1.4	.0	.0	.0	.0	14.9	4.1	.0	5.4	.0	2.7		.0	73.0
06&09	4.5	3.4	9.0	.0	.0	.0	2.2	19.1	3.4	.0	11.2	1.1	1.1		.0	64.0
12&15	3.4	5.1	6.8	.0	.0	.0	.0	15.3	13.6	1.7	5.1	.0	.0		.0	66.1
18&21	2.5	5.1	1.3	.0	.0	.0	3.8	12.7	5.1	.0	6.3	1.3	.0		.0	74.7
TOT PCT	5.3	4.0	4.7	.0	.0	.0	1.7	15.6	6.0	.3	7.3	.7	1.0		.0	69.4
TOT OBS:	301															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	4.4	2.7	2.8	2.3	1.2		13.9	21.9	14.6	25.0	14.6	10.0	5.9	18.8	19.8	12.0
NE	.0	2.7	5.2	2.2	.9	.0		11.0	18.0	14.2	25.0	15.0	4.3	6.4	28.1	6.5	9.9
E	.0	1.1	3.9	.8	.0	.0		5.2	16.5	7.6	6.3	3.1	4.3	3.6	25.0	5.2	1.9
SE	.3	.8	1.7	.1	.3	.0		3.2	14.4	3.5	2.1	4.6	3.6	.0	.0	2.6	7.4
S	.0	2.5	3.8	.5	.0	.0		6.8	12.8	4.9	25.0	2.3	12.1	10.0	.0	4.3	8.3
SW	.0	4.4	6.8	2.9	1.6	.3		16.0	17.8	16.7	8.3	18.1	17.1	19.1	12.5	10.8	17.5
W	.6	3.6	12.3	7.1	1.2	.6		25.4	19.3	19.8	6.3	24.6	27.1	33.2	12.5	30.6	25.0
NW	1.6	5.3	4.6	4.1	1.0	.6		17.1	17.6	17.4	2.1	16.2	18.6	21.8	3.1	16.8	18.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.5							1.5	.0	1.4	.0	1.5	2.9	.0	.0	3.4	.0
TOT OBS	15	82	134	68	24	9	332		18.0	72	12	65	35	55	8	58	27
TOT PCT	4.5	24.7	40.4	20.5	7.2	2.7		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.1	5.0	1.9	2.9	2.0		13.9	21.9	16.1	13.0	7.5	17.4
NE	1.9	3.1	4.2	.9	.9		11.0	18.0	15.8	11.3	9.1	7.4
E	.0	2.4	2.2	.6	.0		5.2	16.5	7.4	3.5	6.3	4.1
SE	.6	1.6	.7	.3	.0		3.2	14.4	3.3	4.3	.0	4.1
S	1.3	3.8	1.7	.0	.0		6.8	12.8	7.7	5.8	8.7	5.6
SW	.8	7.6	5.3	1.9	.8		16.0	17.8	15.5	17.8	18.3	12.9
W	2.6	7.6	10.0	4.1	1.1		25.4	19.3	17.9	25.5	30.6	28.8
NW	3.0	7.1	3.2	2.6	1.1		17.1	17.6	15.2	17.0	19.4	17.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.5						1.5	.0	1.2	2.0	.0	2.4
TOT OBS	46	127	97	44	18	332		18.0	84	100	63	85
TOT PCT	13.9	38.3	29.2	13.3	5.4		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00603	1.2	2.4	22.6	38.1	26.2	8.3	1.2	18.9	100.0	84
06609	2.0	2.0	25.0	38.0	21.0	7.0	5.0	18.6	100.0	100
12615	.0	4.8	19.0	50.8	22.2	3.2	.0	16.5	100.0	63
18621	2.4	3.5	30.6	37.6	12.9	9.4	3.5	17.4	100.0	85
TOT	5	10	82	134	68	24	9	18.0		332
PCT	1.5	3.0	24.7	40.4	20.5	7.2	2.7		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.6	.5	4.7	7.1		6.7
NE	1.8	1.4	4.4	6.0		6.0
E	.0	.0	3.3	3.8		7.3
SE	.0	.6	1.2	2.0		6.7
S	1.1	2.9	1.5	3.2		5.3
SW	2.0	1.7	10.5	4.8		6.1
W	1.1	3.0	9.6	6.0		6.0
NW	1.4	2.1	5.7	4.5		6.0
VAR	.0	.0	.0	.0		.0
CALM	.0	.6	.6	.4		6.0
TOT OBS	13	21	69	63	166	6.2
TOT PCT	7.8	12.7	41.6	38.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.9	.0	.0	1.7	1.7	3.6	.0	.0	.5	1.7	2.9	
NE	.8	.0	1.8	.4	3.3	1.1	.0	.0	.0	.2	5.9	
E	.0	.0	.6	.4	2.7	1.7	.0	.0	.6	.4	.3	
SE	.6	.0	.0	.4	.5	.8	.0	.0	.0	.0	1.2	
S	.0	.0	.0	.0	1.5	2.6	.0	.0	.6	.0	3.9	
SW	.6	.0	.0	2.0	5.1	4.2	1.5	.0	.0	.6	5.0	
W	.0	.0	1.7	3.3	3.3	1.1	2.7	.0	.0	.0	7.7	
NW	.8	.0	.2	.2	3.5	.2	.6	.6	.2	.0	6.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.6	.0	.0	.6	.0	.0	.0	.6	
TOT OBS	6	0	7	17	36	25	9	1	3	5	57	165
TOT PCT	3.6	.0	4.2	10.2	21.7	15.1	5.4	.6	1.8	3.0	34.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	3.0	4.8	4.8	4.8	4.8	4.8	4.8	4.8
= OR >5000	3.6	5.4	5.4	5.4	5.4	5.4	5.4	5.4
= OR >3500	7.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
= OR >2000	14.4	25.1	25.7	25.7	25.7	25.7	25.7	25.7
= OR >1000	26.3	45.5	47.9	47.9	47.9	47.9	47.9	47.9
= OR >600	26.9	51.5	57.5	57.5	58.1	58.1	58.1	58.1
= OR >300	27.5	52.7	59.9	61.1	62.3	62.3	62.3	62.3
= OR >150	27.5	52.7	59.9	61.1	62.3	62.3	62.3	62.3
= OR > 0	28.1	53.9	61.1	63.5	65.3	65.3	65.9	65.9
TOTAL	47	90	102	106	109	109	110	110

TOTAL NUMBER OF OBS: 167 PCT FREQ NH <5/8: 34.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
2.9	5.1	9.7	8.0	8.6	8.0	10.9	13.1	31.4	2.9	175

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TABLE A

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.6	.0	.0	.0	.0	.0	.0	.1	.0	.3	1.0	
	TOT %	.6	.0	.0	.0	.0	.0	.0	.1	.0	.3	1.0	
1/2<1	PCP	.3	.0	.0	.2	.2	.2	.2	1.0	.0	.0	2.0	
	NO PCP	.2	.5	.0	.0	.0	.5	1.5	1.3	.0	.0	4.0	
	TOT %	.5	.5	.0	.2	.2	.7	1.7	2.4	.0	.0	6.1	
1<2	PCP	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.7	
	NO PCP	.3	1.1	.0	.0	.0	.0	.0	.3	.0	.0	1.7	
	TOT %	.3	1.4	.0	.0	.0	.0	.3	.3	.0	.0	2.4	
2<5	PCP	.0	.0	.3	.0	.0	.0	.7	.0	.0	.0	1.0	
	NO PCP	1.3	.0	.0	.0	.0	1.0	.6	.5	.0	.3	3.7	
	TOT %	1.3	.0	.3	.0	.0	1.0	1.3	.5	.0	.3	4.7	
5<10	PCP	1.7	.8	.3	.3	1.2	1.5	3.6	1.3	.0	.0	10.8	
	NO PCP	2.9	4.2	2.8	1.9	2.9	7.6	9.4	7.7	.0	.7	40.1	
	TOT %	4.5	5.0	3.1	2.3	4.1	9.1	13.0	9.0	.0	.7	50.8	
10+	PCP	.3	.0	.0	.0	.3	.4	.0	.0	.0	.0	1.0	
	NO PCP	3.8	4.6	2.0	1.0	2.8	6.2	7.9	5.3	.0	.3	34.0	
	TOT %	4.1	4.6	2.0	1.0	3.0	6.6	7.9	5.3	.0	.3	35.0	
	TOT OBS												297
	TOT PCT	11.3	11.5	5.5	3.5	7.3	17.4	24.2	17.6	.0	1.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.3	.0	.0	.0	.0	.0	.0	.1	.0		.3	
	22+	.3	.0	.0	.0	.0	.0	.0	.0	.0		.3	
	TOT %	.6	.0	.0	.0	.0	.0	.0	.1	.0	.3	1.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0	.7	
	4-10	.0	.0	.0	.0	.0	.0	.3	.7	.0		1.0	
	11-21	.2	.5	.0	.2	.2	.7	.7	.3	.0		2.7	
	22+	.3	.0	.0	.0	.0	.0	.3	1.0	.0		1.7	
	TOT %	.5	.5	.0	.2	.2	.7	1.7	2.3	.0	.0	6.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.4	.0	.0	.0	.0	.0	.0	.0		.7	
	11-21	.0	.7	.0	.0	.0	.0	.3	.0	.0		1.0	
	22+	.0	.3	.0	.0	.0	.0	.0	.3	.0		.7	
	TOT %	.3	1.4	.0	.0	.0	.0	.3	.3	.0	.0	2.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.3	.0	.0		.3	
	22+	1.3	.0	.3	.0	.0	1.0	1.3	.5	.0		4.4	
	TOT %	1.3	.0	.3	.0	.0	1.0	1.6	.5	.0	.3	5.0	
5<10	0-3	.3	.0	.0	.3	.0	.0	.0	1.1	.0	.7	2.3	
	4-10	1.7	1.0	.8	.5	1.3	2.3	1.3	3.9	.0		13.1	
	11-21	1.4	2.3	2.0	1.0	2.5	3.8	6.4	2.1	.0		21.5	
	22+	1.2	1.7	.3	.4	.3	2.9	5.1	1.9	.0		13.8	
	TOT %	4.5	4.9	3.1	2.3	4.1	9.1	13.0	9.0	.0	.7	50.7	
10+	0-3	.3	.0	.0	.0	.0	.0	.0	.3	.0	.3	1.0	
	4-10	1.8	1.5	.3	.3	1.4	2.3	.9	1.1	.0		9.7	
	11-21	.7	2.0	1.7	.7	1.3	2.9	4.4	2.4	.0		16.1	
	22+	1.3	1.1	.0	.0	.3	1.4	2.5	1.4	.0		8.1	
	TOT %	4.1	4.6	2.0	1.0	3.0	6.6	7.9	5.3	.0	.3	34.9	
	TOT OBS												298
	TOT PCT	11.2	11.5	5.5	3.4	7.3	17.4	24.5	17.5	.0	1.7	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	5.4	.0	5.4	7.1	14.3	19.6	1.8	.0	5.4	5.4	64.3	35.7	56
06&09	4.4	.0	2.2	4.4	35.6	15.6	11.1	.0	.0	.0	73.3	26.7	45
12&15	.0	.0	3.3	10.0	26.7	6.7	3.3	.0	.0	6.7	56.7	43.3	30
18&21	2.6	.0	5.1	20.5	12.8	15.4	5.1	2.6	.0	.0	64.1	35.9	39
TOT	6	0	7	17	37	26	9	1	3	5	111	59	170
PCT	3.5	.0	4.1	10.0	21.8	15.3	5.3	.6	1.8	2.9	65.3	34.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.4	5.4	2.7	4.1	39.2	47.3	74
06&09	2.2	6.7	3.3	4.4	53.3	30.0	90
12&15	.0	3.4	1.7	5.1	55.9	33.9	59
18&21	.0	7.6	1.3	7.6	54.4	29.1	79
TOT	3	18	7	16	153	105	302
PCT	1.0	6.0	2.3	5.3	50.7	34.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <30YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	5.5	10.9	20.0	45.5	34.5	55
06&09	4.4	8.9	15.6	57.8	26.7	45
12&15	.0	3.4	17.2	41.4	41.4	29
18&21	2.6	7.9	31.6	34.2	34.2	38
TOT	6	14	35	76	56	167
PCT	3.6	8.4	21.0	45.5	33.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.0	.0	.0	.6	.0	.0	2	1.2
55/59	.0	.0	.0	.0	1.8	2.5	5.5	.0	16	9.8
50/54	.0	.0	.0	.0	7.4	12.9	16.0	12.3	80	49.1
45/49	.0	.0	.0	1.2	2.5	8.0	11.0	13.5	59	36.2
40/44	.0	.0	.0	.0	.0	1.8	1.8	.0	6	3.7
TOTAL	0	0	0	4	19	42	56	42	163	100.0
PCT	.0	.0	.0	2.5	11.7	25.8	34.4	25.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.5	.2	.0	.0	.6	.0	.0	.0	.0	.0
1.7	.8	1.2	.6	.9	1.5	1.2	1.2	.0	.6
9.4	6.4	3.4	.6	2.1	6.4	11.0	8.4	.0	1.2
4.4	5.8	2.9	2.0	3.2	6.4	8.9	2.5	.0	.0
.5	.0	.0	.0	.6	1.8	.5	.3	.0	.0
16.4	13.2	7.5	3.2	7.5	16.3	21.6	12.4	.0	1.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	68	67	57	52	47	42	42	51.7	84
06&09	57	56	55	51	46	45	45	50.8	97
12&15	55	54	53	49	45	43	43	49.3	63
18&21	60	59	56	49	43	39	39	49.4	81
TOT	68	60	56	50	45	42	39	50.4	325

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	3.7	16.7	24.1	31.5	24.1	91	54
06&09	.0	2.3	9.3	23.3	39.5	25.6	83	43
12&15	.0	.0	6.3	31.3	28.1	34.4	84	32
18&21	.0	2.8	11.1	25.0	38.9	22.2	82	36
TOT	0	4	19	42	57	43	82	165

OCTOBER

PERIOD: (PRIMARY) 1886-1977
(OVER-ALL) 1873-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	TOT	% FOG	WD FOG
11/13	.0	.8	.4	.0	.4	2	.0	.8
9/10	.0	.0	.0	1.7	.4	5	.0	2.1
7/8	.0	.0	.0	.0	.8	2	.0	.8
6	.0	.0	1.3	1.3	.4	7	.8	2.1
5	.0	.0	.4	1.7	.8	7	.4	2.5
4	.0	.0	2.1	2.5	.0	11	1.3	3.4
3	.0	.8	.4	2.5	.0	9	.4	3.4
2	.0	2.5	3.8	3.4	.0	23	.8	8.9
1	.4	.8	6.3	4.2	.0	28	.4	11.4
0	.0	2.5	8.9	2.5	.0	33	2.5	11.4
-1	.0	3.0	8.0	2.5	.0	32	.4	13.1
-2	.8	8.9	5.1	.4	.4	37	.4	15.2
-3	.8	1.7	3.0	.0	.0	13	.0	5.5
-4	.0	3.0	2.1	.4	.0	13	.4	5.1
-5	.0	1.3	.4	.0	.0	4	.0	1.7
-6	.4	1.3	.4	.0	.0	5	.0	2.1
-7/-8	.0	.8	1.3	.0	.0	5	.0	2.1
-11/-13	.0	.4	.0	.0	.0	1	.0	.4
TOTAL	6	64	104	55	8	237	19	218
PCT	2.5	27.0	43.9	23.2	3.4	100.0	8.0	92.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.1	.0	.0	.0	.0	2.1
1-2	.8	.6	2.1	.0	.0	.0	3.4
3-4	.6	.6	.8	.0	.0	.0	1.9
5-6	.0	.0	.0	.6	.8	.0	1.3
7	.0	.8	.0	.0	.6	.0	1.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.8	.0	.8	1.5
12	.0	.0	.0	.0	.0	.8	.8
13-16	.0	.0	.0	.8	.0	.0	.8
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.8	.0	.8
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	4.0	2.9	2.1	2.1	1.5	13.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.7	.8	.0	.0	.0	2.5
1-2	.0	1.7	.8	.0	.0	.0	2.5
3-4	.0	1.0	.8	.0	.0	.0	1.7
5-6	.0	.0	.8	.2	.0	.0	1.0
7	.0	.0	.8	.0	.0	.0	.8
8-9	.0	.0	1.5	.0	.0	.0	1.5
10-11	.0	.0	.0	.0	.8	.0	.8
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.4	5.3	.2	.8	.0	10.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	1.5	.0	.0	.0	1.5
3-4	.0	.8	.8	.0	.0	.0	1.5
5-6	.0	.0	.8	.0	.0	.0	.8
7	.0	.0	.8	.0	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	3.8	.0	.0	.0	4.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.8	.0	.0	.0	.0	.8
3-4	.0	.0	.0	.8	.0	.0	.8
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.8	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	1.9	.0	.0	.0	2.3

PERIOD: (OVER-ALL) 1963-1977 OCTOBER AREA 0031 FOVEAUX STRAIT 46.9S 168.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.0	1.9	.0	.0	.0	.0	1.9
3-4	.0	.0	2.3	.0	.0	.0	2.3
5-6	.0	.0	.6	.0	.0	.0	.6
7	.0	.0	2.3	.8	.0	.0	3.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.6	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.7	5.2	1.3	.0	.0	9.2

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.9	.0	.0	.0	.0	1.9
3-4	.0	2.3	4.0	.0	.0	.0	6.3
5-6	.0	.8	1.0	.0	.0	.0	1.7
7	.0	.0	1.7	2.3	.8	.0	4.8
8-9	.0	.0	.8	.0	.2	.0	1.0
10-11	.0	.0	.0	1.0	.0	.0	1.0
12	.0	.0	.0	2.3	.0	.0	2.3
13-16	.0	.0	.0	.0	.0	.8	.8
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.0	7.4	5.5	1.0	.8	19.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8
1-2	.0	2.1	.8	.0	.0	.0	2.9
3-4	.0	.0	1.9	.0	.0	.0	1.9
5-6	.0	.0	3.6	2.3	.0	.0	5.9
7	.0	.0	2.1	1.3	1.1	.0	4.6
8-9	.0	.0	.0	1.3	.6	.0	1.9
10-11	.0	.0	.0	1.5	.0	.0	1.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.8	.8	.8	2.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.6	.0	.6
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.9	8.4	7.3	3.1	.8	22.3

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	1.0	.2	.0	.0	.0	1.1	
3-4	.2	1.5	4.0	.8	.0	.0	6.5	
5-6	.0	.0	1.0	1.5	.0	.0	2.5	
7	.0	.0	1.5	1.0	.6	.0	3.1	
8-9	.0	.0	.0	.2	.0	.0	.2	
10-11	.0	.0	.0	.0	.8	.0	.8	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.8	.0	.8	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	1.5	1.5	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	2.5	6.7	3.4	2.9	1.5	16.6	99.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.8	5.3	.8	.0	.0	.0	6.9	
1-2	.8	9.9	5.3	.0	.0	.0	16.0	
3-4	.8	6.1	15.3	.8	.0	.0	22.9	
5-6	.0	.8	7.6	4.6	.8	.0	13.7	
7	.0	.8	9.9	5.3	3.1	.0	19.1	
8-9	.0	.0	2.3	1.5	.8	.0	4.6	
10-11	.0	.0	.0	3.8	1.5	.8	6.1	
12	.0	.0	.0	2.3	.0	.8	3.1	
13-16	.0	.0	.0	1.5	.8	1.5	3.8	
17-19	.0	.0	.0	.0	.8	.0	.8	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	1.5	.0	1.5	
26-32	.0	.0	.0	.0	.0	1.5	1.5	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.3	22.9	41.2	19.8	9.2	4.6	100.0	131

PERIOD: (OVER-ALL) 1952-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	5.6	9.4	4.4	3.8	1.9	.6	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	43	5
6-7	.0	1.9	4.4	3.1	1.3	3.8	1.9	.6	1.9	1.3	.0	.6	.6	.0	.0	.0	.0	.0	.0	34	8
8-9	.0	.6	.0	1.3	5.0	2.5	2.5	1.3	3.8	.6	.6	1.3	.0	.0	.0	.0	.0	.0	.0	31	11
10-11	.0	.0	1.9	.6	1.3	3.1	2.5	1.9	3.8	1.3	.6	1.3	1.9	.0	.0	.0	.0	.0	.0	32	13
12-13	.0	.0	.0	.6	.0	1.3	.0	.6	.6	.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	7	12
>13	.0	.0	.0	.0	1.3	.0	.0	.0	1.3	.0	.0	.6	.6	.0	.0	.0	.0	.0	.0	6	16
INDET	.6	.6	.0	1.3	.6	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	6
TOTAL	1	14	25	18	21	20	12	9	20	6	3	6	5	0	0	0	0	0	0	165	9
PCT	.6	8.8	15.6	11.3	13.1	12.5	7.5	5.6	12.5	3.8	1.9	3.8	3.1	.0	.0	.0	.0	.0	.0	100.5	

NOVEMBER

PERIOD: (PRIMARY) 1884-1977
(OVER-ALL) 1869-1977

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	8.1	7.2	.0	.0	.0	.0	.0	15.3	3.6	.0	7.2	.0	.0		.0	73.9
NE	6.2	2.7	1.8	.0	.0	.0	.0	10.7	.0	3.6	15.1	.0	1.8		.0	70.7
E	5.6	.0	.0	.0	.0	.0	.0	5.6	.0	.0	11.1	.0	11.1		.0	72.2
SE	6.0	.0	.0	.0	.0	.0	.0	6.0	.0	.0	6.0	.0	.0		.0	86.1
S	6.3	10.7	.0	.0	.0	.0	1.8	18.8	.0	.0	3.6	.0	2.7		.0	75.0
SW	8.5	11.9	.0	.0	.0	.0	8.5	28.9	1.7	.9	.0	.0	.4		.0	68.9
W	8.1	13.0	1.7	.0	.0	.0	.8	24.2	1.7	.8	.0	.0	1.7		.0	72.5
NW	12.0	3.8	.0	.0	.0	.0	.0	15.8	.0	.0	6.3	.0	.0		.0	77.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
TOT PCT	7.9	7.5	.7	.0	.0	.0	2.0	18.0	1.0	1.0	5.6	.0	1.6		.0	73.4
TOT OBS:	305															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	3.1	4.6	.0	.0	.0	.0	.0	7.7	.0	1.5	1.5	.0	1.5		.0	89.2
06609	7.0	6.0	.0	.0	.0	.0	3.0	16.0	.0	.0	5.0	.0	2.0		.0	77.0
12615	17.0	5.7	1.9	.0	.0	.0	1.9	26.4	5.7	1.9	5.7	.0	.0		.0	62.3
18621	7.8	12.2	1.1	.0	.0	.0	2.2	23.3	.0	1.1	8.9	.0	2.2		.0	64.4
TOT PCT	8.1	7.5	.6	.0	.0	.0	1.9	18.2	1.0	1.0	5.5	.0	1.6		.0	73.4
TOT OBS:	308															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	3.5	2.7	2.5	.8	.0		10.2	16.0	9.9	28.6	14.0	8.7	6.5	25.0	11.6	5.8
NE	2.4	7.3	5.4	1.7	.0	.0		16.8	10.9	18.9	28.6	11.8	17.9	17.7	8.3	13.4	21.2
E	.7	2.9	1.9	.7	.0	.0		6.1	10.4	6.4	.0	7.0	5.1	3.4	.0	8.2	7.7
SE	.7	2.8	.7	1.5	.0	.0		5.7	12.0	5.1	.0	4.4	11.2	3.9	.0	6.0	5.8
S	1.3	2.5	3.3	1.1	.5	.3		9.0	15.1	8.0	.0	10.7	6.1	14.7	.0	8.2	7.7
SW	.3	4.3	7.4	4.4	1.3	.0		17.6	17.2	17.9	14.3	21.7	18.9	15.9	.0	17.7	14.9
W	.5	4.8	6.8	5.5	1.9	.0		19.4	18.4	18.6	14.3	16.5	19.4	25.4	16.7	15.9	22.6
NW	.8	3.3	6.0	4.1	.5	.0		14.7	17.3	13.8	14.3	12.5	12.8	12.5	50.0	19.0	14.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.5							.5	.0	1.3	.0	1.5	.0	.0	.0	.0	.0
TOT OBS	30	118	128	80	19	1	376		15.3	78	7	68	49	58	6	58	52
TOT PCT	8.0	31.4	34.0	21.3	5.1	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.1	4.5	1.5	1.9	.3		10.2	16.0	11.5	11.8	8.2	8.9
NE	6.4	6.6	2.8	.9	.0		16.8	10.9	19.7	14.3	16.8	17.0
E	2.8	1.7	1.7	.0	.0		6.1	10.4	5.9	6.2	3.1	8.0
SE	2.1	1.5	2.0	.0	.0		5.7	12.0	4.7	7.3	3.5	5.9
S	2.0	3.9	2.1	.5	.5		9.0	15.1	7.4	8.8	13.3	8.0
SW	2.7	6.4	5.5	2.9	.1		17.6	17.2	17.6	20.5	14.5	16.4
W	3.4	4.9	6.7	4.0	.4		19.4	18.4	18.2	17.7	24.6	19.1
NW	2.5	3.7	5.7	2.5	.3		14.7	17.3	13.8	12.6	16.0	16.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	.5						.5	.0	1.2	.9	.0	.0
TOT OBS	92	125	105	48	6	376		15.3	85	117	64	110
TOT PCT	24.5	33.2	27.9	12.8	1.6		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1884-1977
(OVER-ALL) 1869-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.2	10.6	28.2	30.6	25.9	2.4	1.2	15.3	100.0	85
06&09	.9	4.3	29.9	35.0	23.1	6.8	.0	16.2	100.0	117
12&15	.0	3.1	31.3	37.5	21.9	6.3	.0	16.5	100.0	64
18&21	.0	10.9	35.5	33.6	15.5	4.5	.0	13.4	100.0	110
TOT	2	28	118	128	80	19	1	15.3		376
PCT	.5	7.4	31.4	34.0	21.3	5.1	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.7	.0	3.7	4.4		6.5
NE	3.7	.0	2.8	4.3		5.6
E	.9	1.9	3.7	1.9		5.2
SE	1.2	.0	1.2	.0		2.9
S	4.2	1.4	3.9	2.5		4.6
SW	1.2	5.6	12.7	3.9		5.5
W	4.6	.5	11.1	1.4		5.0
NW	.2	1.9	5.3	6.0		6.6
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.9	.0		7.0
TOT OBS	19	12	49	28	108	5.5
TOT PCT	16.7	11.1	45.4	26.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	1.9	2.3	.9	.0	.0	.0	.0	3.9	
NE	.0	.0	.0	.0	3.2	1.9	.0	.9	.0	.0	5.8	
E	.0	.0	1.9	.0	.0	2.8	.0	.0	.0	.0	3.7	
SE	.0	.0	.0	.2	.0	.9	.0	.0	.0	.0	1.2	
S	.0	.0	.0	3.2	.0	.9	.7	.0	.0	.0	7.2	
SW	.0	.0	.0	2.1	4.9	4.9	1.2	.0	.9	.0	9.5	
W	.0	.0	.0	.7	.7	4.9	.5	.0	.0	.0	11.1	
NW	.0	.0	.0	3.9	.9	2.3	.5	.0	.0	.0	5.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.9	
TOT OBS	0	0	2	14	13	22	3	1	1	0	52	108
TOT PCT	.0	.0	1.9	13.0	12.0	20.4	2.8	.9	.9	.0	48.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.0	.9	.9	.9	.9	.9	.9	.9
= OR >5000	.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8
= OR >3500	1.8	4.6	4.6	4.6	4.6	4.6	4.6	4.6
= OR >2000	12.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8
= OR >1000	19.3	37.6	37.6	37.6	37.6	37.6	37.6	37.6
= OR >600	23.9	46.8	50.5	50.5	50.5	50.5	50.5	50.5
= OR >300	24.8	47.7	52.3	52.3	52.3	52.3	52.3	52.3
= OR >150	24.8	47.7	52.3	52.3	52.3	52.3	52.3	52.3
= OR > 0	24.8	47.7	52.3	52.3	52.3	52.3	52.3	52.3
TOTAL	27	52	57	57	57	57	57	57

TOTAL NUMBER OF OBS: 109 PCT FREQ NH <5/8: 47.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
7.0	7.0	14.9	7.0	11.4	10.5	13.2	7.0	21.1 .0	114

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PERIOD: (PRIMARY) 1864-1977
(OVER-ALL) 1869-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.0	2.3	.3	.0	.0	.0	.0	.0	.0	.0	2.6	
	TOT %	.0	2.3	.3	.0	.0	.0	.0	.0	.0	.0	2.6	
	PCP	.2	.1	.2	.0	.0	.0	.0	.5	.0	.0	1.0	
1/2<1	NO PCP	.3	.5	.3	.3	.3	.0	.0	.8	.0	.0	2.6	
	TOT %	.5	.6	.6	.3	.3	.0	.0	1.3	.0	.0	3.6	
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	PCP	.2	.0	.0	.0	.2	.1	.3	.1	.0	.0	1.0	
2<5	NO PCP	.3	.3	.3	.0	.0	.7	.2	.1	.0	.0	2.0	
	TOT %	.6	.3	.3	.0	.2	.7	.6	.2	.0	.0	2.9	
	PCP	1.0	2.0	.0	.0	1.5	5.5	4.3	1.5	.0	.0	15.7	
5<10	NO PCP	4.8	3.7	2.0	3.6	2.6	5.6	7.8	6.2	.0	.0	36.3	
	TOT %	5.8	5.6	2.0	3.6	4.1	11.0	12.2	7.7	.0	.0	52.0	
	PCP	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.7	
10+	NO PCP	2.2	9.6	2.6	1.2	4.5	7.4	6.5	3.8	.0	.3	38.2	
	TOT %	2.2	9.6	2.9	1.6	4.5	7.4	6.5	3.8	.0	.3	38.9	
	TOT OBS												306
	TOT PCT	9.1	18.5	6.1	5.5	9.2	19.2	19.3	12.9	.0	.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	1.0	.3	.0	.0	.0	.0	.0	.0	.0	1.3	
<1/2	4-10	.0	1.0	.0	.0	.0	.0	.0	.0	.0		1.0	
	11-21	.0	.3	.0	.0	.0	.0	.0	.0	.0		.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	2.2	.3	.0	.0	.0	.0	.0	.0	.0	2.6	
	0-3	.0	.3	.0	.0	.0	.0	.0	.3	.0	.0	.6	
1/2<1	4-10	.2	.2	.3	.3	.0	.0	.0	.0	.0		1.0	
	11-21	.0	.1	.2	.0	.3	.0	.0	.0	.0		.6	
	22+	.3	.0	.0	.0	.0	.0	.0	1.0	.0		1.3	
	TOT %	.5	.6	.6	.3	.3	.0	.0	1.3	.0	.0	3.5	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	4-10	.2	.5	.5	.2	.0	.0	.0	.0	.0		1.3	
	11-21	.0	.0	.0	.0	.2	.4	.0	.0	.0		.6	
	22+	.6	.0	.3	.0	.0	.3	.6	.2	.0		1.9	
	TOT %	.7	.5	.8	.2	.2	.7	.6	.2	.0	.0	3.8	
	0-3	.3	.3	.2	.2	.3	.3	.0	.0	.0	.0	1.6	
5<10	4-10	1.8	1.8	.5	1.1	.3	1.1	2.1	1.9	.0		10.6	
	11-21	2.2	2.0	1.0	.6	1.9	4.9	3.4	3.8	.0		19.9	
	22+	1.4	1.4	.3	1.6	1.4	4.5	6.4	2.1	.0		19.2	
	TOT %	5.7	5.5	1.9	3.5	4.0	10.8	11.9	7.9	.0	.0	51.3	
	0-3	.6	1.3	.3	.4	.9	.0	.6	.6	.0	.3	5.1	
10+	4-10	.7	5.3	2.2	1.1	2.1	3.2	2.6	1.0	.0		18.3	
	11-21	.3	2.9	.6	.0	1.2	2.0	2.3	1.5	.0		10.9	
	22+	.5	.3	.0	.0	.2	2.1	.9	.5	.0		4.5	
	TOT %	2.2	9.8	3.2	1.5	4.4	7.3	6.4	3.7	.0	.3	38.8	
	TOT OBS												312
	TOT PCT	9.1	18.6	6.8	5.5	9.0	18.8	18.9	13.0	.0	.3	100.0	

PERIOD: (PRIMARY) 1884-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.0	.0	3.0	6.1	9.1	21.2	3.0	3.0	.0	.0	45.5	54.5	33
06&09	.0	.0	2.8	11.1	11.1	16.7	5.6	.0	2.8	.0	50.0	50.0	36
12&15	.0	.0	.0	11.8	11.8	23.5	.0	.0	.0	.0	47.1	52.9	17
18&21	.0	.0	.0	23.1	19.2	19.2	.0	.0	.0	.0	61.5	38.5	26
TOT	0	0	2	14	14	22	3	1	1	0	57	55	112
PCT	.0	.0	1.8	12.5	12.5	19.6	2.7	.9	.9	.0	50.9	49.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.5	.0	.0	4.4	44.1	50.0	68
06&09	2.0	3.0	.0	4.0	57.4	33.7	101
12&15	3.6	3.6	.0	5.5	54.5	32.7	55
18&21	3.3	6.6	.0	2.2	49.5	38.5	91
TOT	8	11	0	12	163	121	315
PCT	2.5	3.5	.0	3.8	51.7	38.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	.0	3.0	12.1	36.4	51.5	33
06&09	.0	2.9	17.1	37.1	45.7	35
12&15	.0	.0	13.3	40.0	46.7	15
18&21	.0	.0	23.1	38.5	38.5	26
TOT	0	2	18	41	50	109
PCT	.0	1.8	16.5	37.6	45.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.6	.0	.0	.0	.0	.0	1	.6
70/74	.0	.0	.0	.0	.6	.6	.0	.0	2	1.3
65/69	.0	.0	1.3	.6	.6	3.1	1.3	.0	11	6.9
60/64	.0	.0	.0	.6	.6	3.1	3.8	1.3	15	9.4
55/59	.0	.0	.0	1.3	4.4	4.4	8.1	1.9	32	20.0
50/54	.0	.0	.0	2.5	5.6	7.5	16.3	11.3	69	43.1
45/49	.0	.0	.0	.6	1.9	3.8	5.0	5.6	27	16.9
40/44	.0	.0	.0	.0	.0	.0	1.3	.6	3	1.9
TOTAL	0	0	3	9	22	36	57	33	160	100.0
PCT	.0	.0	1.9	5.6	13.8	22.5	35.6	20.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
.0	.6	.0	.0	.0	.0	.6	.0	.0	.0
.0	1.3	1.9	.0	.0	1.9	1.9	.0	.0	.0
.0	5.0	.6	.6	.6	.0	1.9	.6	.0	.0
5.2	3.6	1.1	.6	1.6	1.9	3.3	2.8	.0	.0
5.0	8.8	1.3	2.0	6.7	6.7	6.7	5.9	.0	.0
.5	2.5	1.9	.2	2.2	3.9	2.8	2.3	.0	.6
.0	.0	.0	.0	.5	.8	.0	.6	.0	.0
10.6	21.7	7.3	3.4	11.6	15.2	17.2	12.3	.0	.6

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	75	74	66	54	46	42	42	55.0	82
06&09	69	68	64	52	44	41	41	52.6	115
12&15	61	60	55	50	45	40	40	50.2	64
18&21	68	66	61	52	44	41	41	51.6	106
TOT	75	68	64	52	44	41	40	52.4	367

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	12.8	23.1	25.6	20.5	17.9	75	39
06&09	.0	9.8	9.8	23.5	45.1	11.8	79	51
12&15	.0	4.0	16.0	24.0	40.0	16.0	81	25
18&21	.0	4.3	8.7	17.4	34.8	34.8	83	46
TOT	0	13	22	36	57	33	80	161

NOVEMBER

PERIOD: (PRIMARY) 1884-1977
(OVER-ALL) 1869-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	# FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	1.2	.0	3	.0	1.2
9/10	.0	.0	.0	.0	.4	.0	1.2	.0	4	.0	1.6
7/8	.0	.0	.0	.0	1.2	2.1	.0	.4	9	.0	3.7
6	.0	.0	.0	.0	1.6	.0	.4	.0	5	.0	2.1
5	.0	.0	.0	.8	.0	.4	.0	.0	3	.0	1.2
4	.0	.0	.0	1.2	2.1	.8	.0	.0	10	.4	3.7
3	.0	.0	1.2	.0	2.9	1.2	.0	.0	13	.0	5.3
2	.0	.0	1.2	3.3	4.1	.4	.0	.0	22	.0	9.1
1	.0	.0	1.6	4.5	2.9	1.2	.0	.0	25	2.5	7.8
0	.0	.8	2.1	7.0	6.2	.0	.0	.0	39	2.1	14.0
-1	.0	.8	1.2	7.4	2.5	.0	.0	.0	29	1.2	10.7
-2	.0	.0	4.1	2.9	1.2	.0	.0	.0	20	.0	8.2
-3	.0	.0	5.3	2.1	1.2	.0	.0	.0	21	.4	8.2
-4	.0	.0	1.6	.8	.8	.0	.0	.0	8	.0	3.3
-5	.0	.0	1.2	1.6	.0	.0	.0	.0	7	.4	2.5
-6	.0	1.2	1.2	.0	.0	.0	.0	.0	6	.0	2.5
-7/-8	.0	3.3	.8	.0	.0	.0	.0	.0	10	.0	4.1
-9/-10	.4	.4	1.6	.4	.0	.0	.0	.0	7	.0	2.9
-11/-13	.0	.4	.4	.0	.0	.0	.0	.0	2	.0	.8
TOTAL	1	17	58	78	66	15	7	1	243	17	226
PCT	.4	7.0	23.9	32.1	27.2	6.2	2.9	.4	100.0	7.0	93.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	.0	.0	.0	.0	.0	1.0
1-2	.0	1.8	.0	.0	.0	.0	1.8
3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	2.9	.0	.0	2.9
8-9	.0	1.0	.0	1.0	.0	.0	2.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	1.0	.0	1.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	2.9	.0	3.9	1.0	.0	8.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	2.1	1.0	.0	.0	.0	3.1
3-4	.0	1.0	2.1	.0	.0	.0	3.1
5-6	.0	.0	1.0	1.0	.0	.0	2.1
7	.0	.0	2.1	.0	.0	.0	2.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.2	6.3	1.0	.0	.0	11.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	1.0	1.0	.0	.0	.0	.0	2.1
3-4	.0	.0	1.0	1.0	.0	.0	2.1
5-6	.0	.0	2.1	.0	.0	.0	2.1
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	1.0	3.1	1.0	.0	.0	6.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.5
1-2	.0	1.0	.0	.0	.0	.0	1.0
3-4	.0	.3	.0	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.6	.0	.0	.0	.0	1.8

PERIOD: (OVER-ALL) 1963-1977 NOVEMBER AREA 0031 FOVEAUX STRAIT 46.7S 162.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.8	1.8	.0	.0	.0	.0	3.6
1-2	.0	2.6	.0	.0	.0	.0	2.6
3-4	1.0	1.6	1.8	.8	.0	.0	5.2
5-6	.0	.0	1.8	.0	.0	.0	1.8
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.9	6.0	3.6	.8	.0	.0	13.3

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	4.2	2.1	.0	.0	.0	6.3
3-4	.0	1.3	3.9	3.4	.0	.0	8.6
5-6	.0	.0	.5	1.3	.0	.0	1.8
7	.0	.0	1.0	1.0	.0	.0	2.1
8-9	.0	.0	.0	1.0	.0	.0	1.0
10-11	.0	.0	1.0	.0	1.0	.0	2.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	1.0	.0	1.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	2.1	.0	.0	2.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.5	9.6	8.9	2.1	.0	25.0

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	1.0	2.6	.0	.0	.0	.0	3.6
3-4	.0	.0	3.6	2.1	.0	.0	5.7
5-6	.0	.0	.8	.3	.0	.0	1.6
7	.0	.0	1.8	1.8	1.0	.0	4.7
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	1.0	.0	.0	.0	1.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	3.6	7.3	4.7	1.0	.0	17.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.0	.0	.0	.0	.0	.0	1.0	
1-2	.0	2.3	2.1	.0	.0	.0	4.4	
3-4	.0	1.0	1.0	1.0	.0	.0	3.1	
5-6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.3	.5	.0	.0	.8	
8-9	.0	.0	.0	3.1	.0	.0	3.1	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	1.0	.0	.0	.0	1.0	
17-19	.0	.0	.0	.0	1.0	.0	1.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.0	3.4	4.4	4.7	1.0	.0	14.6	99.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.2	4.2	.0	.0	.0	.0	9.4	
1-2	2.1	17.7	5.2	.0	.0	.0	25.0	
3-4	1.0	5.2	13.5	8.3	.0	.0	28.1	
5-6	.0	.0	6.3	3.1	.0	.0	9.4	
7	.0	.0	5.2	6.3	1.0	.0	12.5	
8-9	.0	1.0	.0	5.2	.0	.0	6.3	
10-11	.0	.0	2.1	.0	1.0	.0	3.1	
12	.0	.0	.0	.0	1.0	.0	1.0	
13-16	.0	.0	1.0	.0	1.0	.0	2.1	
17-19	.0	.0	.0	.0	1.0	.0	1.0	
20-22	.0	.0	.0	2.1	.0	.0	2.1	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.3	28.1	33.3	25.0	5.2	.0	100.0	96

PERIOD: (OVER-ALL) 1952-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.6	5.4	7.2	5.4	.9	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	3
6-7	.0	.0	2.7	6.3	9.0	4.5	3.6	.0	3.6	.9	1.8	.0	.0	.0	.0	.0	.0	.0	.0	36	8
8-9	.0	.9	4.5	2.7	3.6	3.6	3.6	1.8	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	7
10-11	.0	.0	.9	.9	.9	2.7	1.8	.0	.0	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	10	10
12-13	.0	.0	.0	.0	.0	.0	.9	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	13
>13	.0	.0	.0	.9	.0	.0	.9	.0	.9	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4	15
INDET	.9	.0	2.7	.0	.9	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	5
TOTAL	5	7	20	18	17	14	14	2	7	3	3	0	0	1	0	0	0	0	0	111	7
PCT	4.5	6.3	18.0	16.2	15.3	12.6	12.6	1.8	6.3	2.7	2.7	.0	.0	.9	.0	.0	.0	.0	.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1882-1977
(OVER-ALL) 1870-1977

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	7.0	3.5	2.2	.0	.0	.0	.0	11.3	2.6	.0	9.1	.0	1.7	.0	.0	75.2
NE	6.1	.0	2.0	.0	.0	.0	.0	8.1	.0	.0	10.5	.0	4.1	.0	.0	77.4
E	9.4	.0	2.1	.0	.0	.0	.0	9.4	.0	.0	4.2	.0	2.1	.0	.0	84.4
SE	.0	7.2	.0	.0	.0	.0	.0	7.2	.0	.0	4.8	.0	.0	.0	.0	88.0
S	.0	10.9	4.4	.0	.0	.0	.0	15.3	.0	.0	2.2	.0	.0	.0	.0	82.5
SW	6.9	18.0	2.9	.0	.0	.0	2.6	30.4	2.0	.0	1.3	.0	.0	.0	.0	66.3
W	5.7	7.1	8.2	.0	.0	.0	.0	21.1	3.9	.5	.9	.0	.9	.0	.0	73.2
NW	7.8	6.6	4.8	.0	.0	.0	.0	18.9	2.1	.6	6.0	.0	.0	.0	.0	73.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.3	8.3	.0	.0	.0	.0	.0	16.7	.0	.0	.0	.0	.0	.0	.0	83.3
TOT PCT	5.8	6.9	3.8	.0	.0	.0	.4	16.6	1.6	.2	4.6	.0	1.1	.0	.0	76.1
TOT OBS:	548															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	7.7	5.1	.9	.0	.0	.0	.0	13.7	1.7	.0	3.4	.0	.9	.0	.0	80.3
06&09	6.4	8.0	3.7	.0	.0	.0	.0	17.6	1.6	.0	4.6	.0	2.1	.0	.0	73.9
12&15	5.7	7.6	6.7	.0	.0	.0	1.0	20.0	1.0	1.0	1.9	.0	.0	.0	.0	77.1
18&21	3.8	6.3	4.4	.0	.0	.0	.6	15.0	1.9	.0	6.3	.0	1.3	.0	.0	75.6
TOT PCT	5.8	6.8	3.9	.0	.0	.0	.4	16.5	1.6	.2	4.4	.0	1.2	.0	.0	76.3
TOT OBS:	570															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	2.7	3.9	1.6	1.5	.1		10.8	17.7	8.7	.0	7.5	15.1	13.5	16.7	12.6	9.1
NE	1.7	5.4	4.5	1.4	.6	.0		13.6	12.3	13.8	3.6	11.3	15.7	17.3	16.7	10.5	13.8
E	.4	4.3	3.5	1.1	.0	.0		9.2	11.8	7.7	10.7	10.1	11.0	8.0	.0	9.8	10.3
SE	1.2	4.4	1.2	.5	.0	.0		7.3	9.1	9.4	7.1	5.2	8.7	6.4	.0	9.0	10.3
S	1.8	9.4	2.1	1.1	.0	.0		8.3	10.8	10.1	17.9	9.5	6.7	4.9	16.7	8.6	8.1
SW	.3	9.8	6.5	2.6	.9	.0		14.0	16.8	9.6	14.3	18.7	14.9	17.3	20.8	10.2	11.6
W	.9	4.5	8.0	3.8	2.3	.5		19.9	18.9	19.8	32.1	21.4	15.4	22.1	29.2	21.0	16.6
NW	.1	2.5	6.7	4.0	.8	.5		14.6	20.4	18.0	14.3	15.5	9.3	8.8	.0	15.7	20.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3							2.3	.0	2.8	.0	.8	1.2	1.8	.0	6.7	.0
TOT OBS	62	206	243	108	40	7	666		15.3	143	7	126	86	113	6	105	80
TOT PCT	9.3	30.9	36.5	16.2	6.0	1.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.7	3.8	2.9	2.0	.3		10.8	17.7	8.3	10.6	13.7	11.1
NE	4.5	5.6	2.4	1.0	.2		13.6	12.3	13.3	13.1	17.2	11.9
E	2.5	4.8	1.3	.7	.0		9.2	11.8	7.8	10.5	7.6	10.0
SE	3.0	3.5	.6	.2	.0		7.3	9.1	9.3	6.6	6.1	7.3
S	3.1	2.7	2.3	.2	.0		8.3	10.8	10.5	8.4	5.5	8.4
SW	1.8	5.2	4.7	2.2	.2		14.0	16.8	9.8	17.9	17.4	10.8
W	2.5	7.7	5.1	3.4	1.2		19.9	18.9	20.3	19.0	22.5	19.1
NW	.7	4.5	6.5	2.1	.8		14.6	20.4	17.8	13.0	8.4	17.7
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.3						2.3	.0	2.7	.9	1.7	3.8
TOT OBS	147	251	172	78	18	666		15.3	150	212	119	185
TOT PCT	22.1	37.7	25.8	11.7	2.7		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	2.7	10.0	29.3	38.0	16.0	3.3	.7	14.1	100.0	150
06&09	.9	6.1	30.7	39.2	15.6	7.1	.5	15.8	100.0	212
12&15	1.7	1.7	31.9	37.0	16.0	10.1	1.7	17.3	100.0	119
18&21	3.8	9.2	31.9	31.9	17.3	4.3	1.6	14.5	100.0	185
TOT	15	47	206	243	108	40	7	15.3		666
PCT	2.3	7.1	30.9	36.5	16.2	6.0	1.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.5	1.0	1.6	5.8		6.8
NE	3.1	.1	2.5	6.4		5.8
E	1.9	1.9	3.0	1.7		4.6
SE	1.2	1.0	1.4	.5		4.3
S	1.7	.4	3.8	2.3		5.7
SW	1.0	1.2	6.1	4.4		6.2
W	2.5	5.4	13.0	6.7		5.7
NW	1.0	1.3	7.6	4.5		6.3
VAR	.0	.0	.0	.0		.0
CALM	.0	.5	1.6	1.0		6.5
TOT OBS	25	25	78	69	193	5.8
TOT PCT	13.0	13.0	40.4	33.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.9	.0	.8	2.6	1.8	1.3	.0	.0	.0	.0	1.6	
NE	.0	.0	.1	.8	1.8	1.8	1.0	.3	.0	.1	6.3	
E	.0	.0	.0	.0	.9	1.6	.0	.3	.0	.9	4.9	
SE	.0	.0	.0	.0	1.0	.8	.0	.0	.0	.1	2.2	
S	.0	.0	.0	.4	.0	3.1	.9	.5	.0	.4	2.8	
SW	1.6	.0	.1	2.3	2.8	2.1	.1	.0	.5	.0	3.1	
W	.0	.0	.4	3.9	4.0	4.7	1.0	.9	.0	.5	10.2	
NW	.1	.0	.6	2.5	2.7	.8	1.0	.6	.0	1.0	5.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.5	.0	.0	.0	1.6	.5	.0	.0	.0	.0	.5	
TOT OBS	6	0	4	24	36	32	8	5	1	6	71	193
TOT PCT	3.1	.0	2.1	12.4	18.7	16.6	4.1	2.6	.5	3.1	36.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.5	3.5	4.0	4.0	4.0	4.0	4.0	4.0
= OR >5000	4.0	6.0	6.5	6.5	6.5	6.5	6.5	6.5
= OR >3500	6.5	9.5	10.6	10.6	10.6	10.6	10.6	10.6
= OR >2000	16.1	26.6	28.1	28.1	28.1	28.1	28.1	28.1
= OR >1000	26.1	43.2	45.7	46.2	46.2	46.2	46.2	46.2
= OR >600	31.2	53.3	57.3	58.3	58.3	58.3	58.3	58.3
= OR >300	31.7	54.8	58.8	59.8	60.3	60.3	60.3	60.3
= OR >150	31.7	54.8	58.8	59.8	60.3	60.3	60.3	60.3
= OR > 0	31.7	56.3	60.8	62.3	63.3	63.3	63.3	63.3
TOTAL	63	112	121	124	126	126	126	126

TOTAL NUMBER OF OBS: 199 PCT FREQ NH <5/8: 36.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
4.2	5.2	10.0	11.0	3.8	7.6	12.4	15.7	25.2	2.9	210

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.7	.2	.2	.0	.0	.0	.7	.0	.0	1.8	
	TOT %	.0	.7	.2	.2	.0	.0	.0	.7	.0	.0	1.8	
1/2<1	PCP	.2	.1	.0	.0	.0	.2	.5	.2	.0	.0	1.3	
	NO PCP	1.0	.7	.0	.0	.0	.0	.3	.3	.0	.0	2.2	
	TOT %	1.2	.8	.0	.0	.0	.2	.8	.5	.0	.0	3.5	
1<2	PCP	.0	.0	.0	.0	.0	.2	.4	.0	.0	.2	.7	
	NO PCP	.0	.5	.2	.0	.0	.0	.2	.0	.0	.0	.9	
	TOT %	.0	.5	.2	.0	.0	.2	.5	.0	.0	.2	1.6	
2<5	PCP	.2	.2	.0	.0	.0	.0	.5	.2	.0	.0	1.1	
	NO PCP	.1	.2	.2	.0	.2	.2	.2	.4	.0	.0	1.5	
	TOT %	.3	.4	.2	.0	.2	.2	.7	.6	.0	.0	2.6	
5<10	PCP	.8	.6	.6	.5	1.3	3.8	2.1	2.2	.0	.2	12.2	
	NO PCP	6.7	5.8	4.9	4.2	3.7	5.8	8.6	6.8	.0	1.1	47.6	
	TOT %	7.4	6.5	5.6	4.7	5.0	9.6	10.8	9.0	.0	1.3	59.9	
10+	PCP	.0	.2	.2	.0	.0	.1	.6	.2	.0	.0	1.3	
	NO PCP	1.6	4.4	2.5	2.6	3.2	3.7	6.5	4.2	.0	.7	29.4	
	TOT %	1.6	4.6	2.6	2.6	3.2	3.8	7.1	4.3	.0	.7	30.7	
	TOT OBS												548
	TOT PCT	10.5	13.5	8.8	7.6	8.3	14.0	19.9	15.2	.0	2.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.5	.2	.2	.0	.0	.0	.2	.0		1.1	
	11-21	.0	.2	.0	.0	.0	.0	.0	.5	.0		.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.7	.2	.2	.0	.0	.0	.7	.0	.0	1.8	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.6	.0	.0	.0	.0	.2	.2	.0		1.3	
	11-21	.7	.1	.0	.0	.0	.2	.3	.1	.0		1.5	
	22+	.2	.0	.0	.0	.0	.0	.4	.2	.0		.7	
	TOT %	1.2	.8	.0	.0	.0	.2	.8	.5	.0	.0	3.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.5	.2	.0	.0	.2	.5	.0	.0		1.5	
	TOT %	.0	.5	.2	.0	.0	.2	.5	.0	.0	.2	1.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	.0	.2	.0	.0	.2	.0		.5	
	11-21	.1	.4	.0	.0	.0	.2	.0	.2	.0		.9	
	22+	.2	.0	.0	.0	.0	.0	.7	.2	.0		1.1	
	TOT %	.3	.4	.2	.0	.2	.2	.7	.6	.0	.0	2.6	
5<10	0-3	.3	.5	.1	.8	.2	.2	.5	.1	.0	1.3	4.0	
	4-10	2.1	2.7	2.3	2.6	1.9	1.8	1.7	1.5	.0		16.6	
	11-21	2.6	2.3	3.1	.9	2.0	5.0	4.7	3.8	.0		24.5	
	22+	2.6	.9	.1	.4	.9	2.6	3.7	3.7	.0		14.8	
	TOT %	7.4	6.5	5.6	4.7	5.0	9.6	10.8	9.0	.0	1.3	59.9	
10+	0-3	.1	1.1	.4	.5	1.5	.2	.4	.0	.0	.7	4.9	
	4-10	.6	1.4	1.4	1.9	1.2	1.5	1.6	.2	.0		9.7	
	11-21	.8	1.9	.7	.2	.1	1.4	3.4	2.7	.0		11.3	
	22+	.0	.2	.2	.0	.4	.8	1.8	1.4	.0		4.7	
	TOT %	1.6	4.6	2.6	2.6	3.2	3.8	7.1	4.3	.0	.7	30.7	
	TOT OBS												548
	TOT PCT	10.5	13.5	8.8	7.6	8.3	14.0	19.9	15.2	.0	2.2	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	3.9	.0	2.0	7.8	17.6	21.6	5.9	2.0	.0	5.9	66.7	33.3	51
06&09	5.1	.0	1.7	11.9	15.3	15.3	5.1	5.1	1.7	.0	61.0	39.0	59
12&15	.0	.0	2.2	6.7	26.7	20.0	2.2	.0	.0	4.4	62.2	37.8	45
18&21	2.1	.0	2.1	20.8	14.6	12.5	2.1	2.1	2.1	2.1	60.4	39.6	48
TOT	6	0	4	24	37	35	8	5	2	6	127	76	203
PCT	3.0	.0	2.0	11.8	18.2	17.2	3.9	2.5	1.0	3.0	62.6	37.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.9	2.6	.9	.9	53.0	41.9	117
06&09	1.6	4.3	2.1	2.7	63.3	26.1	188
12&15	1.9	1.0	1.9	2.9	61.0	31.4	105
18&21	2.5	4.4	1.9	3.1	60.6	27.5	160
TOT	10	19	10	14	342	175	570
PCT	1.8	3.3	1.8	2.5	60.0	30.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	3.9	5.9	13.7	52.9	33.3	51
06&09	5.1	6.8	23.7	39.0	37.3	59
12&15	.0	2.3	16.3	46.5	37.2	43
18&21	2.2	4.3	28.3	34.8	37.0	46
TOT	6	10	41	86	72	199
PCT	3.0	5.0	20.6	43.2	36.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.0	.0	.5	.5	2	1.0
65/69	.0	.0	.0	.5	1.9	1.0	.5	1.4	11	5.2
60/64	.0	1.4	.0	.0	1.0	2.4	3.3	4.3	26	12.4
55/59	.0	1.0	1.9	.5	1.4	7.1	8.1	15.7	75	35.7
50/54	.0	.5	1.4	1.4	1.9	11.0	10.5	13.8	85	40.5
45/49	.0	.0	.0	.5	.5	1.4	.0	2.9	11	5.2
TOTAL	0	6	7	6	14	48	48	81	210	100.0
PCT	.0	2.9	3.3	2.9	6.7	22.9	22.9	38.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.5	.0	.5	.0	.0	.0	.0	.0	.0
.4	1.5	.5	1.1	1.3	.5	.0	.0	.0	.0
.8	1.7	.8	1.0	2.5	2.3	3.2	.1	.0	.0
3.2	6.5	1.9	1.4	2.9	3.9	7.4	8.0	.0	.5
3.8	3.5	5.7	1.1	2.3	5.1	12.3	4.9	.0	1.9
.8	.6	.0	.0	.4	1.2	2.3	.0	.0	.0
9.0	14.3	8.9	5.0	9.3	13.0	25.1	13.0	.0	2.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	70	68	66	56	50	46	45	56.4	148
06&09	71	69	63	55	49	46	45	55.2	208
12&15	66	61	58	53	48	45	43	53.0	120
18&21	68	63	61	54	48	46	39	53.8	179
TOT	71	67	63	54	48	46	39	54.7	655

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.9	8.6	22.4	22.4	39.7	82	58
06&09	.0	7.9	6.3	23.8	30.2	31.7	81	63
12&15	.0	6.1	4.1	20.4	26.5	42.9	84	49
18&21	.0	16.7	6.3	25.0	12.5	39.6	79	48
TOT	0	20	14	90	51	83	81	218

DECEMBER

PERIOD: (PRIMARY) 1882-1977
(OVER-ALL) 1870-1977

AREA 0031 FOVEAUX STRAIT
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.0	.0	.4	.2	3	.0	.7
9/10	.0	.0	.0	.0	.2	.0	.9	.4	7	.0	1.6
7/8	.0	.0	.0	.0	.2	.9	1.1	.2	11	.4	2.0
6	.0	.0	.0	.0	.2	.7	.4	.2	7	.0	1.6
5	.0	.0	.0	.2	1.1	4.7	1.3	.0	33	.4	6.9
4	.0	.0	.0	.0	2.9	2.5	.9	.0	28	1.1	5.1
3	.0	.0	.0	.2	4.9	3.8	.4	.0	42	.7	8.7
2	.0	.0	.4	2.5	6.0	3.1	.9	.0	58	.4	12.5
1	.0	.0	.0	1.1	5.1	2.0	.0	.0	37	.7	7.6
0	.0	.0	.0	5.8	5.6	2.2	.0	.0	61	.4	13.2
-1	.0	.0	.2	5.8	4.3	.0	.4	.0	48	.4	10.3
-2	.0	.0	.9	6.5	3.8	1.3	.0	.0	56	.9	11.6
-3	.0	.0	.4	3.6	1.3	.0	.0	.0	24	.0	5.4
-4	.0	.0	1.1	.7	.7	.2	.0	.0	12	.0	2.7
-5	.0	.0	.7	.7	.7	.0	.2	.0	10	.0	2.2
-6	.0	.0	.0	.7	.2	.0	.0	.0	4	.0	.9
-7/-8	.0	.0	.4	.0	.2	.0	.0	.0	3	.0	.7
-9/-10	.0	.2	.2	.0	.0	.0	.0	.0	2	.0	.4
-11/-13	.2	.0	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	1		20		168		32			25	422
		1		124		96		5	447		
PCT	.2	.2	4.5	27.7	37.6	21.5	7.2	1.1	100.0	5.6	94.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.4	.0	.0	.0	1.0
1-2	.0	.6	1.1	.0	.0	.0	1.7
3-4	.0	.0	.6	.0	.0	.0	.6
5-6	.0	.0	1.4	.4	.0	.0	1.9
7	.0	.0	.9	.0	.0	.0	.9
8-9	.0	.0	.0	.0	1.0	.0	1.0
10-11	.0	.0	.0	.4	.6	.0	1.0
12	.0	.0	.0	.6	.0	.0	.6
13-16	.0	.0	.0	.0	1.0	.0	1.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	4.5	1.4	2.6	.0	9.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.1	.0	.0	.0	.7
1-2	.6	.6	2.4	.0	.0	.0	3.6
3-4	.0	1.1	1.3	.0	.0	.0	2.4
5-6	.0	.0	2.6	.0	.0	.0	2.6
7	.0	.0	1.9	.6	.0	.0	2.4
8-9	.0	.0	.6	.0	.1	.0	.7
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.6	.0	.0	.6
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	1.8	8.9	1.3	.1	.0	13.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.0	.6	.0	.0	.0	1.1
1-2	.0	2.3	1.0	.0	.0	.0	3.3
3-4	.0	1.1	1.0	.0	.0	.0	2.2
5-6	.0	.0	.9	.0	.0	.0	.9
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.4	3.4	.0	.0	.0	7.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0
1-2	1.1	2.4	.6	.0	.0	.0	3.6
3-4	.6	.0	.6	.0	.0	.0	.0
5-6	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.6	.0	.0	.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	2.4	.9	.0	.0	.0	4.3

PERIOD: (OVER-ALL) 1963-1977 DECEMBER AREA 0031 FOVEAUX STRAIT 46.8S 167.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.6	1.4	.0	.0	.0	.0	2.0
3-4	.0	1.4	.4	.0	.0	.0	1.9
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	1.0	.0	.0	1.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	3.3	.4	1.0	.0	.0	5.3

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	1.3	.0	.0	.0	.0	2.4
1-2	.0	.1	1.7	.0	.0	.0	1.9
3-4	.0	.3	1.6	.6	.0	.0	2.4
5-6	.0	.0	.6	.0	.0	.0	.6
7	.0	.0	1.0	.3	.1	.0	1.4
8-9	.0	.0	.0	.0	.9	.0	.9
10-11	.0	.0	.0	.6	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.6	.6	.0	1.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	1.7	4.9	2.6	1.6	.0	11.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.4	.0	.0	.0	1.1
1-2	.6	2.3	3.4	.0	.0	.0	6.3
3-4	.0	.6	1.9	.6	.0	.0	3.0
5-6	.0	.4	5.0	.0	.0	.0	5.5
7	.0	.6	1.9	3.7	.9	.0	7.0
8-9	.0	.0	.0	.0	.9	.0	.9
10-11	.0	1.0	.4	.0	.0	.0	1.4
12	.0	.0	.0	.0	.6	.0	.6
13-16	.0	.0	.0	.6	.0	.0	.6
17-19	.0	.0	.0	.6	1.4	.6	2.6
20-22	.0	.0	.0	.4	.0	.0	.4
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.5	13.2	5.9	3.7	.6	29.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	1.1	.0	.0	.0	1.1	
3-4	.0	.0	3.0	.6	.0	.0	3.6	
5-6	.0	.7	2.0	1.9	.0	.0	4.6	
7	.0	.6	1.3	.7	.1	.0	2.7	
8-9	.0	.0	1.1	.0	.0	.0	1.1	
10-11	.0	.1	.1	.6	.6	.0	1.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.1	.0	.1	
17-19	.0	.0	.0	.6	.3	.0	.9	
20-22	.0	.0	.0	.1	.0	.0	.1	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.4	8.8	4.5	1.1	.0	15.8	97.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.6	3.4	1.7	.0	.0	.0	9.8	
1-2	2.9	9.8	10.9	.0	.0	.0	23.6	
3-4	.0	4.6	9.8	1.7	.0	.0	16.1	
5-6	.0	1.1	12.6	2.3	.0	.0	16.1	
7	.0	1.1	7.5	6.3	1.1	.0	16.1	
8-9	.0	.0	1.7	.0	2.9	.0	4.6	
10-11	.0	1.1	.6	1.7	1.1	.0	4.6	
12	.0	.0	.0	1.1	.6	.0	1.7	
13-16	.0	.0	.0	1.1	1.7	.0	2.9	
17-19	.0	.0	.0	1.1	1.7	.6	3.4	
20-22	.0	.0	.0	.6	.0	.0	.6	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.6	.0	.0	.6	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								174
TOT PCT	7.5	21.3	44.8	16.7	9.2	.6	100.0	

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.9	4.7	8.1	9.0	3.8	2.4	1.4	.9	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	68	5
6-7	.0	.9	1.9	4.7	7.1	3.3	3.3	1.4	1.9	.5	.0	.0	.5	.5	.0	.0	.0	.0	.0	55	8
8-9	.0	.5	.5	1.4	3.3	4.3	2.4	1.4	1.4	1.9	.0	.0	.5	.0	.0	.0	.0	.0	.0	37	10
10-11	.0	.0	.9	.5	1.4	1.4	1.9	.0	.5	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	19	9
12-13	.0	.0	.0	.0	.5	.5	.5	.0	.9	.5	.0	.0	.9	.9	.0	.0	.0	.0	.0	10	19
>13	.0	.0	.0	.0	.9	.5	.9	.0	.5	.0	.0	.5	.9	.9	.0	.0	.0	.0	.0	11	18
INDET	1.9	.0	.5	.0	.5	.9	.9	.9	.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	R
TOTAL	4	13	25	33	37	28	24	10	14	8	0	1	7	5	0	0	0	0	0	211	9
PCT	2.8	6.2	11.8	15.6	17.5	13.3	11.4	4.7	6.6	3.8	.0	.5	3.3	2.4	.0	.0	.0	.0	.0	100.0	

ANNUAL

PERIOD: (PRIMARY) 1881-1978
(OVER-ALL) 1857-1978

AREA 0031 FOVEAUX STRAIT
46.8S 167.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	8.3	3.4	3.4	.0	.0	.0	.2	14.8	2.8	.2	6.4	.0	.6		.3	74.9
NE	3.8	1.2	3.0	.0	.0	.0	.0	7.8	2.3	.4	9.2	.6	.7		.0	79.2
E	5.1	.4	5.1	.0	.0	.0	.0	10.1	2.5	.0	8.7	.2	2.1		.0	76.4
SE	6.5	4.4	5.2	.0	.0	.0	.0	16.1	4.8	.0	8.1	.1	.0		.0	70.8
S	7.6	8.1	5.1	.0	1.3	.0	1.1	21.1	2.4	.0	3.1	.1	.5		.3	72.4
SW	6.7	11.4	2.3	.0	.4	.0	4.5	25.7	3.7	.2	2.6	.0	.4		*	67.5
W	6.2	13.2	3.8	.0	.4	.0	.8	24.1	4.3	.5	3.3	.0	.4		.1	67.6
NW	8.8	8.7	4.0	.0	.0	.0	*	21.2	3.7	1.0	5.1	.2	.2		.2	69.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	2.5	1.3	3.3	.0	.0	.0	.0	7.1	.0	.0	6.9	1.7	.6		.0	83.7
TOT PCT	6.5	7.8	3.6	.0	.3	.0	1.1	19.1	3.3	.4	5.3	.2	.6		.1	71.4
TOT OBS:	4208															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	6.2	5.9	2.6	.0	.2	.0	.3	14.8	2.9	.1	5.0	.1	1.0		.1	76.1
06&09	6.4	8.4	4.1	.0	.3	.0	1.4	20.3	2.9	.2	5.0	.2	.6		.1	70.9
12&15	6.9	7.6	4.6	.0	.0	.0	1.3	20.3	4.1	.7	3.9	.1	.3		.2	71.1
18&21	7.0	8.3	3.6	.0	.6	.0	1.3	20.7	3.2	.6	6.7	.3	.4		.1	68.4
TOT PCT	6.6	7.7	3.8	.0	.3	.0	1.1	19.2	3.3	.4	5.3	.2	.6		.1	71.4
TOT OBS:	4356															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.5	4.1	3.6	2.3	.8	.4		11.7	17.1	12.6	8.1	11.3	11.6	12.5	8.5	11.3	10.8
NE	.6	4.6	4.4	1.5	.5	*		11.5	14.1	12.4	10.5	12.4	9.8	13.1	11.9	9.6	9.2
E	.4	2.6	2.8	.8	.5	.0		7.1	14.2	6.2	9.1	8.4	6.1	6.4	7.5	8.1	6.5
SE	.4	2.0	1.9	1.0	.2	*		5.5	14.0	5.7	7.9	5.2	7.9	4.7	5.3	4.6	6.4
S	.5	2.9	3.4	2.0	.8	*		9.6	16.1	9.1	7.4	8.8	11.6	9.5	6.4	9.0	12.3
SW	.3	4.0	6.9	3.7	1.6	.2		16.7	18.4	16.2	11.9	18.4	19.2	15.9	20.7	15.0	15.8
W	.5	4.1	8.0	5.3	2.2	.4		20.6	19.8	19.7	16.2	20.6	18.2	22.5	18.2	21.5	19.9
NW	.5	3.6	5.3	4.1	1.3	.5		15.2	19.6	16.7	14.4	12.8	13.7	13.0	13.0	17.8	18.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.0							2.0	.0	1.6	.6	2.1	1.9	2.5	.0	2.9	.5
TOT OBS							5282		17.2	1179	81	980	585	947	61	935	514
TOT PCT	5.7	27.9	36.2	20.6	8.0	1.5		100.0		100.0	91.7	100.0	100.0	100.0	91.7	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	1.9	5.0	2.7	1.6	.6		11.7	17.1	12.6	11.4	12.4	10.9
NE	2.5	5.2	2.9	.8	.2		11.5	14.1	12.7	11.5	13.2	9.6
E	1.5	3.1	1.7	.7	.1		7.1	14.2	6.5	7.6	6.5	7.7
SE	1.2	2.6	.9	.6	.2		5.5	14.0	5.8	6.0	4.8	5.3
S	1.9	3.3	2.9	1.1	.4		9.6	16.1	9.2	9.6	9.3	10.0
SW	1.9	6.0	5.6	2.7	.6		16.7	18.4	16.0	18.7	16.1	15.3
W	2.3	6.1	7.8	3.6	1.1		20.6	19.8	19.5	19.9	22.2	21.0
NW	1.8	4.9	4.7	2.7	1.0		15.2	19.6	16.2	13.2	13.1	18.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.0						2.0	.0	1.5	2.0	2.4	2.1
TOT OBS						5282		17.2	1260	1565	1008	1449
TOT PCT	16.9	36.2	28.9	13.8	4.3		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.5	4.4	26.3	37.8	21.3	7.3	1.3	17.2	100.0	1260
06&09	2.0	3.1	27.0	36.6	21.1	8.3	1.8	17.6	100.0	1565
12&15	2.4	3.0	29.7	37.6	18.9	7.5	.9	16.7	100.0	1008
18&21	2.1	4.4	29.1	33.4	20.4	8.8	1.8	17.3	100.0	1449
TOT								17.2		5282
PCT	2.0	3.7	27.9	36.2	20.6	8.0	1.5		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.5	.8	4.0	5.1		6.1
NE	2.3	1.5	3.9	4.9		5.5
E	1.2	1.1	2.8	3.9		5.9
SE	.5	.7	1.6	1.9		5.9
S	1.1	1.2	2.9	3.1		5.9
SW	1.7	2.4	8.3	4.6		5.8
W	2.6	3.1	9.4	6.4		5.8
NW	1.4	1.4	6.0	5.4		6.3
VAR	.0	.0	.0	.0		.0
CALM	.5	.6	.9	.8		5.4
TOT OBS					1858	5.6
TOT PCT	12.7	12.8	39.9	34.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.4	*	.3	1.6	2.0	1.7	.4	.1	.1	.3	4.6	
NE	.4	.0	.3	.5	2.3	2.0	.5	.2	.1	*	5.8	
E	.3	.0	.3	.8	1.6	1.4	.3	*	.1	.2	3.3	
SE	.4	.0	*	.7	1.0	.5	*	.0	.0	*	1.6	
S	.3	.0	.2	1.3	1.2	1.5	.5	.1	.3	.1	2.8	
SW	.6	.1	.7	2.0	3.2	3.5	.8	.1	.2	.1	5.7	
W	.6	.1	.6	2.7	4.1	3.1	1.2	.4	.1	.2	8.4	
NW	.3	.1	.3	2.2	3.1	1.8	.9	.4	.1	.2	5.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.3	.0	.0	.2	.6	.3	.1	*	*	.0	1.2	
TOT OBS												1858
TOT PCT	3.6	.3	2.8	12.0	19.1	15.8	4.7	1.3	1.0	1.2	38.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3
= OR >5000	2.3	3.6	3.7	3.7	3.7	3.7	3.7	3.7
= OR >3500	6.2	8.4	8.7	8.7	8.7	8.7	8.7	8.8
= OR >2000	16.2	23.2	24.3	24.5	24.5	24.5	24.5	24.6
= OR >1000	26.9	40.0	42.7	43.1	43.3	43.4	43.4	43.4
= OR >600	31.7	49.0	53.9	54.7	55.1	55.1	55.1	55.2
= OR >300	32.5	50.8	56.1	57.2	57.7	57.8	57.8	57.8
= OR >150	32.5	50.9	56.3	57.3	58.0	58.1	58.1	58.1
= OR > 0	32.9	51.9	58.4	59.9	61.0	61.1	61.6	61.8

TOTAL NUMBER OF OBS: 1900 PCT FREQ NH <5/8: 38.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
6.7	6.2	9.0	8.1	7.7	7.5	12.0	13.2	26.3	3.2	2005

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	*	*	.0	.0	*	.0	*	.0	.0	.1	
	NO PCP	.2	.5	.2	.1	.0	.1	.1	.2	.0	.1	1.5	
	TOT %	.3	.5	.2	.1	.0	.1	.1	.2	.0	.1	1.6	
1/2<1	PCP	.2	.1	.1	*	.1	.2	.2	.4	.0	.0	1.2	
	NO PCP	.5	.5	.2	.2	.1	.2	.5	.5	.0	*	2.7	
	TOT %	.7	.6	.2	.2	.2	.4	.7	.9	.0	*	3.9	
1<2	PCP	.1	*	.1	*	*	.2	.2	*	.0	*	.7	
	NO PCP	.1	.1	.1	*	*	*	.2	.1	.0	.0	.7	
	TOT %	.2	.2	.2	*	.1	.2	.4	.1	.0	*	1.4	
2<5	PCP	.2	*	.1	.2	.3	.2	.5	.2	.0	.0	1.8	
	NO PCP	.3	.3	.2	*	.2	.5	.4	.4	.0	.1	2.5	
	TOT %	.5	.3	.3	.2	.5	.7	1.0	.6	.0	.1	4.3	
5<10	PCP	.9	.6	.4	.7	1.3	3.7	3.5	2.2	.0	.1	13.3	
	NO PCP	4.3	5.0	3.3	2.2	3.3	5.9	7.0	5.8	.0	.6	37.5	
	TOT %	5.2	5.6	3.7	2.9	4.6	9.6	10.4	8.1	.0	.7	50.8	
10+	PCP	.3	.2	.1	.1	.1	.2	.5	.4	.0	.1	1.9	
	NO PCP	4.1	4.7	2.8	1.8	3.1	6.0	7.2	5.1	.0	1.2	36.0	
	TOT %	4.4	4.9	2.9	1.9	3.3	6.2	7.7	5.5	.0	1.2	38.0	
	TOT OBS												4207
	TOT PCT	11.2	12.1	7.6	5.4	8.7	17.3	20.3	15.4	.0	2.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.2	
	4-10	.1	.2	*	.1	.0	*	.1	.1	.0		.6	
	11-21	.1	.2	.1	*	.0	.1	*	.1	.0		.5	
	22+	.1	.1	*	*	.0	.0	.0	*	.0		.3	
	TOT %	.3	.5	.2	.1	.0	.1	.1	.2	.0	.1	1.6	
1/2<1	0-3	*	*	*	.0	.0	.0	*	.1	.0	*	.2	
	4-10	*	.3	.1	.1	.1	.1	.1	.2	.0		1.0	
	11-21	.2	.2	.1	.1	.1	.2	.3	.3	.0		1.4	
	22+	.4	*	.1	*	*	.1	.3	.3	.0		1.3	
	TOT %	.7	.6	.2	.2	.3	.4	.7	.9	.0	*	3.9	
1<2	0-3	.0	.0	.0	.0	*	*	*	.0	.0	*	.1	
	4-10	.1	*	*	*	*	*	.0	.0	.0		.1	
	11-21	*	.1	.1	*	*	*	.1	*	.0		.3	
	22+	.1	.1	.1	.0	*	.2	.3	.1	.0		.9	
	TOT %	.2	.2	.2	*	.1	.2	.4	.1	.0	*	1.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.1	.2	.1	.1	.1	.1	.1	*	.0		.9	
	11-21	.1	.1	.1	.1	.2	.3	.1	.1	.0		1.0	
	22+	.3	.1	.1	.1	.3	.4	.7	.5	.0		2.6	
	TOT %	.6	.4	.4	.3	.6	.8	1.0	.6	.0	.1	4.6	
5<10	0-3	.2	.1	.1	.3	.1	.1	.2	.3	.0	.7	2.3	
	4-10	1.9	1.7	1.0	.9	1.3	1.9	1.2	1.7	.0		11.7	
	11-21	1.7	2.3	1.8	1.0	1.7	4.0	4.0	2.7	.0		19.1	
	22+	1.3	1.4	.7	.6	1.6	3.6	5.0	3.4	.0		17.5	
	TOT %	5.2	5.6	3.7	2.9	4.6	9.5	10.4	8.1	.0	.7	50.6	
10+	0-3	.2	.4	.2	.2	.3	.2	.2	.2	.0	1.2	3.1	
	4-10	1.8	2.4	1.5	.8	1.4	2.0	2.2	1.5	.0		13.7	
	11-21	1.5	1.8	1.0	.6	.9	2.6	3.2	2.2	.0		13.8	
	22+	.9	.3	.2	.3	.7	1.4	1.9	1.5	.0		7.3	
	TOT %	4.4	4.9	2.9	1.9	3.3	6.2	7.6	5.5	.0	1.2	37.9	
	TOT OBS												4245
	TOT PCT	11.2	12.1	7.6	5.4	8.7	17.2	20.2	15.4	.0	2.2	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	2.3	.3	3.0	9.9	18.1	17.3	4.9	1.7	1.4	1.9	60.9	39.1	574
06&09	2.2	.2	3.0	10.3	17.1	18.4	6.9	1.8	1.5	.6	61.9	38.1	562
12&15	4.7	.4	1.9	11.2	20.7	11.8	3.5	.4	.5	1.2	56.2	43.8	370
18&21	6.5	.2	2.3	15.4	19.8	10.8	4.0	1.2	.7	.8	61.8	38.2	431
TOT													1937
PCT	3.6	.3	2.7	11.5	18.6	15.5	5.0	1.4	1.1	1.1	60.9	39.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.3	3.7	1.3	4.1	40.0	49.6	977
06&09	1.7	3.5	1.9	4.9	54.7	33.4	1329
12&15	1.8	3.1	1.4	4.7	49.6	39.3	866
18&21	1.9	4.9	.9	4.6	55.1	32.6	1223
TOT							4395
PCT	1.7	3.9	1.4	4.6	50.5	38.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	2.4	6.0	19.8	42.8	37.4	565
06&09	2.2	5.9	21.4	42.3	36.3	552
12&15	4.9	7.3	21.4	36.0	42.6	360
18&21	6.7	10.1	28.0	35.5	36.4	423
TOT						1900
PCT	3.7	7.1	22.5	40.0	37.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.1	.0	.0	.0	.0	.0		.1
70/74	.0	.0	*	.0	.1	.1	.1	*		.3
65/69	*	.0	.1	.2	.2	.4	.2	.2		1.3
60/64	.0	.2	.1	.2	.7	1.3	1.5	1.8		5.8
55/59	.0	.4	.4	.4	2.2	5.4	8.1	7.1		23.9
50/54	.0	.1	.4	.8	4.4	9.4	12.5	11.7		39.4
45/49	.0	.0	.1	.9	2.2	6.5	8.9	6.8		25.4
40/44	.0	.0	.0	.1	.3	.7	1.9	.5		3.5
35/39	.0	.0	.0	*	.0	*	.2	.1		.4
TOTAL									2072	100.0
PCT	*	.6	1.2	2.7	10.1	23.8	33.4	28.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
	.0	.1	.0	.1	.0	.0	.1	*	.0	.0
	.1	.3	.2	.1	.1	.2	.2	*	.0	.1
	.8	1.1	.5	.2	.4	.5	1.2	.9	.0	.1
	3.5	3.2	1.9	1.4	1.2	2.6	5.0	4.5	.0	.7
	5.5	4.4	2.9	1.3	2.8	6.0	9.4	6.1	.0	1.0
	2.2	3.0	2.0	1.2	3.1	4.6	6.3	2.6	.0	.5
	.1	.3	.4	.3	.6	.9	.4	.4	.0	.1
	.0	.0	*	.2	.0	.1	.0	*	.0	.0
	12.1	12.4	8.1	4.7	8.3	14.8	22.6	14.6	.0	2.5

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	75	64	60	53	47	43	33	53.8	1261
06&09	71	61	58	52	46	43	34	52.8	1516
12&15	70	60	56	51	46	43	34	51.8	1003
18&21	68	59	57	51	45	42	34	51.6	1491
TOT	75	62	58	51	45	43	33	52.5	5191

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.2	4.3	15.5	28.4	28.0	23.6	80	563
06&09	.0	5.2	9.4	22.5	37.0	26.0	82	585
12&15	.0	3.7	7.5	23.8	32.5	32.5	83	433
18&21	.0	4.8	6.1	20.0	35.9	33.2	84	530
TOT	1	100	210	492	699	629	82	2131

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PERIOD: (PRIMARY) 1881-1978
(OVER-ALL) 1857-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.0	*	1	.0	*
14/16	.0	.0	.0	.0	.0	*	*	.0	.0	2	.0	*
11/13	.0	.0	.0	*	*	.6	.3	*	*	31	*	.9
9/10	.0	.0	.0	.0	.5	.4	.3	.1	*	42	*	1.3
7/8	.0	.0	.0	.4	.8	.5	.3	.2	.0	76	.1	2.1
6	.0	.0	.0	.4	.4	.3	.2	*	.0	50	.1	1.2
5	.0	.0	*	1.5	.9	1.0	.5	*	*	149	.2	3.9
4	.0	.0	.5	1.7	1.3	.9	.4	.0	*	176	.5	4.4
3	.0	.0	.3	1.2	2.0	1.5	.4	.0	.0	214	.2	5.1
2	.0	.0	1.9	2.6	2.7	1.8	.3	.0	.0	359	.4	9.0
1	.0	.1	.8	3.3	3.7	1.6	.2	.0	.0	370	.9	8.7
0	.0	.1	3.4	5.2	3.9	1.6	.2	.0	.0	515	1.3	13.1
-1	.0	.3	2.1	5.1	3.1	.8	.1	.0	.0	425	.6	10.8
-2	.0	.4	3.2	4.3	2.4	.6	*	.0	.0	403	.6	10.3
-3	.0	.2	2.8	3.2	1.2	.2	*	.0	.0	258	.4	7.2
-4	.0	.4	2.3	1.7	.8	.1	.0	.0	.0	176	.1	5.1
-5	.0	.7	2.3	.8	.4	.1	*	.0	.0	129	.1	4.1
-6	.0	1.0	1.1	.4	.2	.1	.0	.0	.0	79	.1	2.5
-7/-8	.1	1.1	1.0	.5	.2	*	.0	.0	.0	89	*	3.0
-9/-10	.1	.4	.6	.1	.1	.0	.0	.0	.0	38	.0	1.3
-11/-13	*	.1	.1	*	.0	.0	.0	.0	.0	7	.0	.2
TOTAL										3589		
PCT	.2	4.7	22.4	32.4	24.7	11.9	3.3	.3	.1	100.0	5.7	94.3

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.9	.1	.0	.0	.0	1.2
1-2	.1	1.7	.7	.0	.0	.0	2.5
3-4	*	.5	1.2	.2	.0	.0	2.0
5-6	.0	.3	1.2	.5	.1	.0	2.0
7	.0	.1	.5	.4	.1	.0	1.0
8-9	.0	.1	.1	.5	.2	.0	.9
10-11	.0	.0	.0	.3	.1	.1	.5
12	.0	.0	.0	*	.1	.1	.3
13-16	.0	.0	*	.1	.1	.1	.4
17-19	.0	.0	.0	.0	.1	.1	.2
20-22	.0	.0	.0	.0	*	.1	.1
23-25	.0	.0	.0	.0	.1	.1	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.5	3.9	2.1	.9	.5	11.2

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.8	.1	.0	.0	.0	1.0
1-2	.3	2.4	1.3	.0	.0	.0	4.0
3-4	.0	1.1	1.4	*	.0	.0	2.6
5-6	.0	.2	.9	.2	.1	.0	1.3
7	.0	.1	.7	.3	*	.0	1.1
8-9	.0	*	.3	*	.1	.0	.5
10-11	.0	.0	.2	.1	.2	.0	.5
12	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	*	.0	.2	.0	.2
17-19	.0	.0	.0	.0	*	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.6	4.9	.6	.6	.0	11.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	*	.0	.0	.0	.7
1-2	.3	1.6	.8	.0	.0	.0	2.7
3-4	.0	.8	1.1	.1	.0	.0	2.0
5-6	.0	.1	.8	.1	.0	.0	1.0
7	.0	.0	.1	.3	.0	.0	.4
8-9	.0	.1	.0	.1	.0	.0	.1
10-11	.0	.0	.1	*	.1	.0	.3
12	.0	.0	.0	.0	.1	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.1	*	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.2	3.0	.7	.3	.0	7.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	*	.4	.0	.0	.0	.0	.4
1-2	.2	1.0	.2	.0	.0	.0	1.3
3-4	*	.6	.5	.3	.0	.0	1.5
5-6	.0	.0	.2	.2	.0	.0	.4
7	.0	.0	.2	.1	*	.0	.3
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.1	.1	*	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.1	.0	.1
17-19	.0	.0	*	.0	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.0	1.2	.9	.1	.0	4.5

PERIOD: (OVER-ALL) 1963-1978

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.9	.0	.0	.0	.0	1.2
1-2	.1	1.5	.3	.0	.0	.0	1.9
3-4	.1	.7	.9	.1	.0	.0	1.8
5-6	.0	*	.3	.1	.0	.0	.4
7	.0	.0	.7	.8	.2	.1	1.8
8-9	.0	.0	.0	.1	.2	.0	.2
10-11	.0	.0	*	.2	.2	.0	.5
12	.0	.0	.1	*	.0	.0	.1
13-16	.0	.0	.0	.1	.1	.0	.2
17-19	.0	.0	*	.0	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.1	.0	.1
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.2	2.3	1.4	.8	.1	8.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.9	.0	.0	.0	.0	1.0
1-2	.1	1.7	.8	.0	.0	.0	2.6
3-4	.0	1.1	2.4	.7	.0	.0	4.3
5-6	.0	.3	1.8	.7	.0	.0	2.8
7	.1	.1	1.4	1.0	.1	.0	2.7
8-9	.0	.1	.3	.6	.3	.0	1.3
10-11	.0	.1	.4	.6	.3	.0	1.4
12	.0	.0	.1	.3	.2	.0	.6
13-16	.0	.0	.0	*	.2	.1	.3
17-19	.0	.0	.1	.1	*	*	.3
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	*	*	*
33-40	.0	.0	.0	*	.0	.0	*
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.3	7.2	4.3	1.3	.1	17.6

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.2	*	.0	.0	.0	1.4
1-2	.2	1.9	.8	.0	.0	.0	2.9
3-4	.0	.9	2.9	.6	.0	.0	4.3
5-6	.0	.1	2.2	.7	.1	.0	3.0
7	.0	.1	1.9	1.6	.6	.0	4.2
8-9	.0	.1	.9	.6	.5	.0	1.4
10-11	.0	.3	.3	.6	.6	*	1.8
12	.0	.0	*	.2	.2	.0	.4
13-16	.0	.0	.1	.4	.6	.2	1.3
17-19	.0	.0	.0	.1	.4	.1	.6
20-22	.0	.0	.0	*	.1	.0	.1
23-25	.0	.0	.0	.1	.1	.0	.2
26-32	.0	.0	.0	.0	.0	.2	.2
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.5	8.5	4.8	3.3	.5	22.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.6	*	.0	.0	.0	.8	
1-2	.2	1.2	.7	.0	.0	.0	2.2	
3-4	*	.7	1.9	.2	.0	.0	2.8	
5-6	.0	.3	1.2	.9	.1	.0	2.4	
7	.0	*	.7	1.4	.3	.1	2.4	
8-9	.0	.0	.4	.9	.1	.0	1.4	
10-11	.0	*	.2	.4	.5	.1	1.1	
12	.0	.0	.1	.1	.1	*	.3	
13-16	.0	.0	.1	.2	.3	*	.6	
17-19	.0	.0	.0	.1	.3	.1	.4	
20-22	.0	.0	.0	*	*	.1	.1	
23-25	.0	.0	.0	.0	*	.0	*	
26-32	.0	.0	.0	.0	.1	.3	.4	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	2.9	5.2	4.1	1.6	.7	14.9	96.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.3	6.3	.4	.0	.0	.0	11.0	
1-2	1.6	13.1	5.6	.0	.0	.0	20.2	
3-4	.2	6.5	12.3	2.3	.0	.0	21.3	
5-6	.0	1.2	8.4	3.4	.2	.0	13.3	
7	.1	.4	6.1	5.7	1.3	.2	13.8	
8-9	.0	.4	1.4	2.8	1.4	.0	5.9	
10-11	.0	.3	1.4	2.4	2.0	.2	6.2	
12	.0	.0	.3	.7	.8	.1	1.8	
13-16	.0	.0	.3	.9	1.5	.3	3.0	
17-19	.0	.1	.1	.4	.9	.4	1.8	
20-22	.0	.0	.0	.3	.1	.1	.6	
23-25	.0	.0	.0	.1	.2	.1	.4	
26-32	.0	.0	.0	.0	.1	.5	.6	
33-40	.0	.0	.0	*	.0	.0	*	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.2	28.2	36.1	18.9	8.7	1.8	100.0	1667

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	4.0	6.3	4.1	3.4	1.6	1.0	.6	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	463	5
6-7	.0	1.1	3.6	4.6	4.6	3.2	2.4	1.1	1.7	.7	.3	.3	.2	.1	.0	.0	.0	.0	.0	471	8
8-9	.0	.4	1.5	2.9	3.0	2.7	2.6	1.2	2.0	1.0	.3	.3	.3	.3	.1	*	.0	.0	.0	374	10
10-11	.0	.3	.8	.7	1.5	1.4	1.5	.4	1.8	1.5	.6	.8	.6	.0	.0	.0	.0	.0	.0	229	12
12-13	.0	.0	.4	.3	.5	.5	.4	.4	1.5	.6	.2	.2	.3	.1	.0	.0	.0	.0	.0	104	13
>13	.0	.0	.0	.6	1.3	1.5	1.7	1.0	2.3	.8	.6	.6	.5	.4	.1	.0	.0	.0	.0	194	13
UNDET	1.4	.6	1.1	.6	.7	.6	.4	.3	.4	.4	*	.0	.0	.0	.0	.0	.0	.0	.0	132	6
TOTAL																				1967	9
PCT	1.9	6.4	13.7	14.0	15.2	11.4	10.0	4.9	10.1	5.2	2.0	2.2	2.0	.9	.2	*	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1881-1976
(OVER-ALL) 1857-1976

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TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
77/78	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
75/76	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
73/74	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
71/72	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
69/70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
67/68	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	*
65/66	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	4	.1
63/64	1.3	1.2	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.7	25	.5
61/62	1.3	2.7	2.3	1.3	.0	.0	.0	.0	.0	.0	.3	1.3	49	1.1
59/60	8.2	12.0	8.2	7.2	1.2	.0	.0	.0	.0	.4	.3	3.6	217	4.7
57/58	20.9	19.4	17.8	10.0	3.8	.9	.0	.0	.5	2.2	3.8	9.6	461	9.9
55/56	30.1	25.8	25.2	19.9	9.2	5.6	1.8	2.0	1.6	4.1	9.6	20.0	753	16.2
53/54	25.7	26.7	28.6	26.9	24.9	10.2	8.6	6.1	3.9	20.6	24.4	27.8	1005	21.7
51/52	9.7	7.8	14.3	15.3	29.6	24.5	16.7	21.5	24.2	24.0	24.4	26.2	857	18.5
49/50	1.6	2.9	2.3	5.6	13.9	23.6	33.0	24.7	35.5	26.2	25.0	8.0	620	13.4
47/48	.5	.7	.0	13.8	10.4	12.5	17.6	21.1	20.8	7.9	5.1	1.8	340	7.3
45/46	.3	.5	.0	.0	6.5	22.7	18.6	23.9	12.4	12.7	5.1	.7	277	6.0
43/44	.0	.0	.0	.0	.6	.0	3.2	.4	.5	1.1	1.9	.0	21	.5
41/42	.0	.0	.0	.0	.0	.0	.5	.4	.5	.7	.0	.0	6	.1
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	611	592	511	391	338	216	221	247	380	267	312	550	4636	100.0
MEAN	55.3	55.5	55.0	53.5	51.6	49.6	48.9	48.9	49.3	50.4	51.4	53.6	51.9	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1011	1010	1011	1011	1012	1006	1011	1010	1011	309
FEB	1014	1010	1012	1009	1013	1014	1012	1011	1013	373
MAR	1013	1014	1014	1013	1013	1009	1012	1011	1013	343
APR	1011	1012	1011	1011	1011	1014	1009	1009	1010	309
MAY	1010	1018	1009	1013	1012		1011	1009	1011	231
JUN	1014	1015	1009	1015	1012	1031	1011	1012	1012	170
JUL	1011		1008	1013	1012	1014	1012	1012	1011	153
AUG	1010	999	1008	1009	1010	1006	1008	1009	1009	259
SEP	1016	1011	1014	1008	1011	1014	1011	1012	1012	234
OCT	1010	1008	1007	1004	1012	1003	1010	1010	1009	205
NOV	1011	1008	1008	1011	1007	1006	1008	1013	1010	225
DEC	1010	1009	1008	1012	1009	1003	1009	1013	1009	341
ANN	1012	1010	1010	1011	1011	1011	1010	1011	1011	3152
OBS	816	81	641	202	579	61	596	182		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	981	983	997	1006	1011	1018	1024	1027	1028
FEB	984	990	997	1007	1013	1018	1025	1028	1031
MAR	984	988	997	1007	1013	1020	1027	1030	1032
APR	983	983	989	1003	1010	1019	1027	1032	1034
MAY	987	988	994	1003	1012	1019	1025	1028	1029
JUN	981	985	993	1003	1013	1019	1031	1033	1034
JUL	982	982	986	1004	1013	1020	1026	1039	1040
AUG	978	983	989	1002	1010	1017	1022	1028	1030
SEP	977	989	996	1006	1013	1020	1027	1035	1036
OCT	980	980	984	1001	1010	1019	1027	1031	1032
NOV	989	991	994	1004	1009	1017	1024	1028	1032
DEC	984	990	994	1001	1010	1017	1024	1030	1033

JANUARY

PERIOD: (PRIMARY) 1956-1978
(OVER-ALL) 1870-1978

AREA 0092 CHRISTCHURCH
43.48S 173.38E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	2.6	.4	.3	.0	.0	.0	.5	3.8	.0	.0	3.2	.0	.0	.4		92.6
NE	1.5	.1	2.3	.0	.0	.0	.2	4.1	.7	.2	7.2	.0	3.5	.0		84.2
E	2.9	.3	1.1	.0	.0	.0	.0	4.3	1.8	.0	12.9	1.1	.6	.6		78.7
SE	7.6	.6	2.2	.0	.0	.0	.0	10.3	4.8	.0	7.0	.2	.7	.0		76.9
S	5.2	.9	3.7	.0	.0	.0	.0	9.7	3.7	.0	1.8	.0	.3	.0		84.3
SW	4.3	1.0	3.9	.0	.0	.0	.0	9.2	4.8	.0	4.3	.0	.0	.0		82.2
W	5.1	2.5	.0	.0	.0	.0	.0	7.6	1.7	1.7	3.4	.0	.0	.0		85.7
NW	4.2	2.1	.0	.0	.0	.0	.0	6.3	2.1	.0	3.4	.0	1.0	2.3		84.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	1.3	.0	1.3	.0	.0	.0	.0	2.5	1.3	.0	10.0	.0	.0	.0		86.3
TOT PCT	3.4	.6	1.9	.0	.0	.0	.1	6.1	2.0	.1	6.0	.1	1.3	.3		84.0
TOT OBS:	1491															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	1.8	.6	2.3	.0	.0	.0	.6	5.3	2.9	.0	8.2	.0	2.6	.0		80.9
06&09	2.6	.8	1.8	.0	.0	.0	.3	5.4	2.0	.0	7.7	.3	1.3	.3		83.1
12&15	3.9	.6	2.7	.0	.0	.0	.0	7.2	1.7	.4	4.3	.0	.8	.0		85.6
18&21	5.1	.7	.7	.0	.0	.0	.0	6.5	1.0	.0	4.5	.3	.7	1.0		86.0
TOT PCT	3.3	.6	2.0	.0	.0	.0	.2	6.2	1.9	.1	6.0	.1	1.3	.3		84.0
TOT OBS:	1539															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.4	9.0	5.6	1.3	.3	.0		12.7	13.6	13.3	14.4	11.0	13.3	11.8	21.9	12.6	7.6
NE	1.0	11.5	13.9	2.0	.1	.0		28.0	12.3	26.6	31.3	33.8	29.7	29.5	15.5	24.8	29.9
E	.9	6.9	3.3	.0	.0	*		11.2	8.8	13.6	19.3	14.4	12.9	7.9	8.5	9.9	7.3
SE	.5	5.3	3.0	.2	.0	*		9.0	9.9	10.8	7.3	10.6	11.3	7.5	8.8	6.9	8.7
S	.7	5.9	5.0	1.4	.1	.0		13.2	12.6	14.4	8.3	14.2	10.5	12.6	11.9	12.8	18.1
SW	.4	3.7	3.9	1.7	.2	.0		9.9	14.2	11.0	10.4	5.2	8.8	10.1	12.1	12.9	11.9
W	.1	1.0	2.2	.7	.2	.1		4.3	16.8	2.8	2.1	3.8	4.3	4.8	5.9	4.6	8.3
NW	.2	2.1	2.8	1.0	.3	.0		6.5	15.5	3.8	2.6	3.8	6.1	8.7	10.3	10.1	2.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.3							5.3	.0	3.8	4.2	3.1	3.1	8.2	5.2	5.8	5.6
TOT OBS	156	676	636	136	21	2	1627		11.8	317	48	286	128	439	97	240	72
TOT PCT	9.6	41.5	39.1	8.4	1.3	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	2.2	6.4	3.3	.7	.1		12.7	13.6	13.5	11.7	13.7	11.5
NE	5.7	15.6	6.5	.2	.0		28.0	12.3	27.2	32.5	26.1	26.0
E	4.7	5.7	.7	.0	*		11.2	8.8	14.3	13.9	8.0	9.3
SE	3.3	4.5	1.1	.1	*		9.0	9.9	10.3	10.8	7.7	7.3
S	3.0	6.3	3.5	.3	.1		13.2	12.6	13.6	13.0	12.5	14.0
SW	2.0	4.1	3.3	.4	.1		9.9	14.2	10.9	6.3	10.4	12.3
W	.7	1.8	1.2	.5	.1		4.3	16.8	2.7	3.9	5.0	5.4
NW	.9	2.9	1.8	.9	.0		6.5	15.5	3.6	4.3	9.0	8.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.3						5.3	.0	3.8	3.1	7.6	5.8
TOT OBS	451	769	349	51	7	1627		11.8	345	414	536	312
TOT PCT	27.7	47.3	21.5	3.1	.4		100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1956-1976
(OVER-ALL) 1870-1976

AREA 0032 CHRISTCHURCH
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.8	4.4	47.9	35.1	7.1	1.6	.0	11.4	100.0	365
06&09	3.1	3.1	39.9	42.5	10.1	1.0	.2	12.6	100.0	414
12&15	7.6	3.7	36.4	42.0	9.3	.9	.0	12.0	100.0	536
18&21	5.8	6.7	45.2	34.3	5.8	1.9	.3	11.0	100.0	312
TOT	86	70	676	636	136	21	2	11.8		1627
PCT	5.3	4.3	41.5	39.1	8.4	1.3	.1		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	4.8	1.7	4.5	2.1		4.1
NE	8.6	4.2	7.9	8.8		4.8
E	2.9	1.2	3.6	3.9		5.2
SE	1.3	.9	2.8	3.6		5.8
S	2.2	1.5	3.2	5.5		5.8
SW	2.1	1.7	2.8	3.0		5.1
W	.9	.4	1.7	.8		5.0
NW	1.6	.8	1.8	1.4		4.7
VAR	.0	.0	.0	.0		.0
CALM	2.4	.5	1.6	1.3		4.2
TOT OBS	296	143	330	333	1102	4.9
TOT PCT	26.9	13.0	29.9	30.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.0	.0	.2	1.5	1.2	.7	.1	.3	.2	8.6	
NE	1.2	.0	.8	1.6	3.1	4.7	.9	.0	.3	.3	16.8	
E	1.0	.0	.4	.9	1.2	1.7	.8	.0	.1	.1	5.6	
SE	.7	.0	.2	.9	1.4	1.3	.5	.3	*	.2	9.3	
S	.5	.1	.4	1.8	2.8	2.4	.4	.1	.1	*	4.3	
SW	.2	.0	.2	.3	2.4	1.5	.2	.0	*	.1	4.6	
W	.2	.0	.0	.2	.5	.7	.2	.2	*	.1	1.6	
NW	.1	.0	.2	.2	.7	.5	.4	.1	*	.2	3.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.5	.0	.0	.4	.5	.7	.1	.2	.2	.2	3.1	
TOT OBS	50	1	24	64	153	163	46	10	13	15	563	1102
TOT PCT	4.5	.1	2.2	5.8	13.9	14.8	4.2	.9	1.2	1.4	51.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	2.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
* OR >5000	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5
* OR >3500	5.9	7.4	7.7	7.7	7.7	7.7	7.7	7.7
* OR >2000	18.1	21.6	22.3	22.3	22.3	22.3	22.3	22.3
* OR >1000	27.4	34.2	35.7	35.7	36.0	36.0	36.0	36.0
* OR >600	30.0	39.1	41.6	41.6	42.0	42.0	42.0	42.0
* OR >300	30.7	40.6	43.5	43.6	44.0	44.1	44.1	44.1
* OR >150	30.7	40.7	43.6	43.6	44.1	44.2	44.2	44.2
* OR > 0	30.9	41.3	45.2	45.5	46.3	46.7	48.6	48.8
TOTAL	350	467	512	515	524	529	550	552

TOTAL NUMBER OF OBS: 1132 PCT FREQ NH <5/8: 51.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
15.9	12.1	11.1	6.4	5.1	5.8	5.1	10.1	24.2	4.3	1179

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PERIOD: (PRIMARY) 1956-1978
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.9	.9	.7	.3	.1	.1	.1	.1	.0	.3	2.7	
	TOT %	.9	.9	.7	.3	.1	.1	.1	.1	.0	.3	2.7	
	PCP	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.2	
1/2<1	NO PCP	.0	.5	.4	.2	.0	.1	.1	.1	.0	.0	1.3	
	TOT %	.0	.7	.4	.3	.0	.1	.1	.1	.0	.0	1.5	
	PCP	.0	.1	.1	.0	.0	.1	.0	.0	.0	.0	.2	
1<2	NO PCP	.1	.0	.0	.0	.0	.1	.0	.0	.0	.1	.3	
	TOT %	.1	.1	.1	.0	.0	.1	.0	.0	.0	.1	.5	
	PCP	.1	.3	.2	.3	.4	.2	.1	.1	.0	.1	1.8	
2<5	NO PCP	.1	.8	.5	.1	.5	.1	.0	.0	.0	.0	1.9	
	TOT %	.2	1.1	.7	.4	.9	.3	.1	.1	.0	.1	3.8	
	PCP	.3	.5	.1	.5	.6	.5	.2	.3	.0	.0	3.0	
5<10	NO PCP	2.6	5.1	2.4	2.1	3.6	2.5	1.0	.4	.0	.6	20.7	
	TOT %	2.8	5.6	2.6	2.6	4.2	2.9	1.2	1.2	.0	.6	23.7	
	PCP	.1	.2	.1	.1	.3	.2	.1	.0	.0	.0	.9	
10+	NO PCP	9.2	19.9	6.5	5.5	7.8	6.1	2.6	5.1	.0	4.2	66.9	
	TOT %	9.4	20.1	6.6	5.6	8.1	6.3	2.6	5.1	.0	4.2	67.9	
	TOT OBS												1490
	TOT PCT	12.7	28.4	11.0	9.1	13.3	9.8	4.0	6.4	.0	5.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.1	.1	*	.0	.0	.0	.1	.0	.3	.6	
<1/2	4-10	.2	.4	.4	.2	.1	*	.1	.0	.0		1.3	
	11-21	.1	.4	.2	*	.0	.1	.0	.0	.0		.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.3	.9	.7	.3	.1	.1	.1	.1	.0	.3	2.7	
	0-3	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.3	
1/2<1	4-10	.0	.3	.2	.2	.0	.0	.0	.0	.0		.7	
	11-21	.0	.1	.1	.0	.0	.1	.1	.1	.0		.5	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0		.1	
	TOT %	.0	.7	.4	.3	.0	.1	.1	.1	.0	.0	1.5	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
1<2	4-10	.1	.1	.1	.0	.0	.1	.0	.0	.0		.3	
	11-21	*	*	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0		.1	
	TOT %	.1	.1	.1	.0	.0	.1	.0	.0	.0	.1	.5	
	0-3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.2	
2<5	4-10	*	.6	.3	.2	.4	.1	.0	.1	.0		1.7	
	11-21	.2	.5	.3	.2	.4	.2	.0	.0	.0		1.9	
	22+	.0	.0	.0	.0	.1	.0	.1	.0	.0		.1	
	TOT %	.2	1.1	.7	.4	.9	.3	.1	.1	.0	.1	3.9	
	0-3	.1	.1	.1	.1	.1	.1	.1	.1	.0	.6	1.4	
5<10	4-10	1.0	2.6	1.7	1.4	2.0	1.3	.3	.2	.0		10.4	
	11-21	1.2	2.2	.8	1.1	1.7	1.2	.4	.6	.0		9.2	
	22+	.5	.6	.0	.1	.5	.3	.4	.3	.0		2.5	
	TOT %	2.8	5.6	2.6	2.6	4.2	2.9	1.2	1.2	.0	.6	23.6	
	0-3	.4	.6	.4	.3	.6	.2	.1	.1	.0	4.2	6.8	
10+	4-10	3.6	7.6	4.3	3.3	3.6	2.1	.5	1.6	.0		26.6	
	11-21	4.2	10.2	1.8	1.8	2.8	2.4	1.7	2.1	.0		27.0	
	22+	1.2	1.6	.1	.1	1.1	1.6	.4	1.3	.0		7.3	
	TOT %	9.3	20.1	6.6	5.5	8.0	6.3	2.6	5.1	.0	4.2	67.7	
	TOT OBS												1494
	TOT PCT	12.7	28.4	11.0	9.1	13.2	9.8	4.0	6.4	.0	5.4	100.0	

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PERIOD: (PRIMARY) 1956-1978
(OVER-ALL) 1870-1978

AREA 0032 CHRISTCHURCH
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	4.1	.0	1.7	5.2	14.1	17.9	5.2	.7	1.7	.7	51.4	48.6	290
06&09	5.6	.3	2.5	5.9	12.7	13.9	3.7	.6	1.2	.6	47.1	52.9	323
12&15	5.0	.0	1.3	5.3	14.1	9.7	1.9	.6	1.6	1.9	41.4	58.6	319
18&21	2.7	.0	3.2	7.3	13.2	17.8	6.4	2.3	.5	2.3	55.7	44.3	219
TOT	52	1	24	67	156	167	67	11	15	15	555	596	1151
PCT	4.5	.1	2.1	5.8	13.6	14.5	4.1	1.0	1.3	1.3	48.2	51.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	3.2	2.3	.9	2.6	22.6	68.3	341
06&09	2.3	2.3	.3	4.1	25.0	66.1	392
12&15	2.7	.4	.6	4.1	20.1	72.1	517
18&21	2.7	1.4	.3	4.8	30.0	60.8	293
TOT	42	23	8	60	367	1043	1543
PCT	2.7	1.5	.5	3.9	23.8	67.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	4.2	6.3	13.7	38.4	47.9	284
06&09	5.7	9.5	17.0	31.2	51.7	317
12&15	5.1	6.4	13.5	29.2	57.4	312
18&21	2.7	6.4	16.0	40.2	43.8	219
TOT	52	82	170	387	575	1132
PCT	4.6	7.2	15.0	34.2	50.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
70/74	.0	.0	.1	.3	.5	.4	.5	.0	14	1.8
65/69	.1	.0	.0	.8	1.4	3.7	3.4	2.5	92	12.0
60/64	.0	.4	.0	.4	2.7	5.5	10.2	20.5	304	39.7
55/59	.0	.4	.3	.4	2.2	8.6	12.9	12.0	282	36.9
50/54	.0	.0	.0	.1	.4	2.0	3.7	3.0	70	9.2
45/49	.0	.0	.0	.1	.0	.0	.0	.1	2	.3
TOTAL	1	6	3	16	57	155	235	292	765	100.0
PCT	.1	.8	.4	2.1	7.5	20.3	30.7	38.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
.2	.4	.0	.0	.3	.3	.2	.3	.0	.1
2.6	3.5	.8	.5	1.0	1.1	.6	1.6	.0	.3
5.3	13.7	5.8	2.8	3.0	2.8	1.6	3.1	.0	1.7
4.2	10.1	3.2	4.1	6.4	4.8	.9	1.8	.0	1.3
.0	.7	.5	.9	3.5	2.7	.5	.4	.0	.0
.0	.0	.0	.1	.0	.1	.0	.0	.0	.0
12.2	28.6	10.3	8.5	14.2	11.8	3.9	7.2	.0	3.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	75	72	69	61	54	50	50	61.2	369
06&09	76	76	68	60	54	52	51	60.5	408
12&15	79	69	66	59	52	50	48	58.9	347
18&21	73	71	66	58	52	50	49	58.2	311
TOT	79	72	68	59	53	50	48	59.7	1435

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	2.6	11.7	31.2	28.6	26.0	81	154
06&09	.5	4.2	7.4	20.6	24.3	42.9	83	189
12&15	.0	3.8	6.0	15.8	32.8	41.6	85	317
18&21	.0	.8	6.1	16.0	36.6	40.5	86	131
TOT	1	25	59	158	242	306	84	791

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PERIOD: (PRIMARY) 1956-1978
(OVER-ALL) 1870-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.1	1	.1	.0
17/19	.0	.0	.0	.0	.1	.0	.2	.0	3	.0	.2
14/16	.0	.0	.0	.3	.2	.2	.7	.2	13	.0	1.0
11/13	.0	.0	.0	.0	.3	.6	.2	.0	14	.1	1.0
9/10	.0	.0	.2	.2	.5	.9	.1	.0	24	.0	1.9
7/8	.0	.0	.2	1.0	1.3	.4	.1	.0	37	.2	2.7
6	.0	.0	.3	.8	1.4	.2	.0	.0	34	.2	2.5
5	.0	.1	.5	3.6	1.8	.1	.1	.0	78	.2	5.9
4	.0	.1	1.7	3.5	1.3	.2	.0	.0	86	.5	6.3
3	.1	.5	3.5	4.1	.6	.0	.0	.0	112	.6	8.1
2	.1	.5	4.5	4.3	.7	.2	.0	.0	131	.5	9.7
1	.1	1.6	6.9	3.4	.5	.0	.0	.0	160	1.2	11.3
0	.1	2.0	5.9	3.6	.3	.0	.0	.0	153	.9	11.0
-1	.5	3.4	4.1	1.3	.3	.0	.0	.0	124	.7	9.0
-2	.4	1.8	3.4	1.5	.2	.0	.0	.0	92	.3	6.9
-3	.2	2.5	2.6	.7	.0	.0	.0	.0	77	.2	5.8
-4	.2	1.6	1.3	.2	.1	.0	.0	.0	44	.2	3.3
-5	.7	2.0	.7	.0	.0	.0	.0	.0	44	.2	3.2
-6	.3	.9	.1	.0	.0	.0	.0	.0	16	.0	1.3
-7/-8	.6	1.0	.5	.1	.0	.0	.0	.0	29	.0	2.3
-9/-10	.1	.3	.1	.0	.0	.0	.0	.0	6	.0	.5
-11/-13	.1	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
-17/-19	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	45	235	467	366	122	33	9	3	1280	77	1203
PCT	3.5	18.4	36.5	28.6	9.5	2.6	.7	.2	100.0	6.0	94.0

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.7	.1	.0	.0	.0	.9
1-2	.2	2.1	1.0	.0	.0	.0	3.4
3-4	.0	.9	2.0	.1	.0	.0	3.0
5-6	.0	.2	1.1	.2	.1	.0	1.7
7	.0	.1	1.2	.6	.2	.0	2.0
8-9	.0	.0	.5	.0	.0	.0	.5
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.2	.1	.0	.3
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.1	6.2	1.4	.3	.0	12.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	2.3	*	.0	.0	.0	2.7
1-2	.4	6.2	1.8	.0	.0	.0	8.4
3-4	.1	2.4	6.3	.1	.0	.0	8.9
5-6	.0	1.0	3.9	.6	.0	.0	5.6
7	.0	.1	2.5	1.0	.0	.0	3.6
8-9	.0	.0	.3	.2	.0	.0	.5
10-11	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.1	.0	.0	.0	.1
13-16	.0	.0	.0	.1	*	.0	.1
17-19	.0	.0	.0	*	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	12.1	15.1	2.0	*	.0	30.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	2.0	.2	.0	.0	.0	2.6
1-2	.1	3.4	1.0	.0	.0	.0	4.5
3-4	.1	1.4	1.2	.0	.0	.0	2.7
5-6	.0	.1	.8	.0	.0	.0	.9
7	.0	.2	.0	.0	.0	.1	.3
8-9	.1	.0	.0	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	7.2	3.2	.0	.0	.1	11.2

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.6	*	.0	.0	.0	1.9
1-2	*	1.7	.4	.0	.0	.0	2.2
3-4	*	1.0	1.1	.1	.0	.0	2.2
5-6	.0	.2	1.0	*	.0	.0	1.3
7	.0	.0	.2	.1	.0	*	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.1	.0	.0	.0	.1
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.3	3.0	.3	.0	*	8.3

PERIOD: (OVER-ALL) 1963-1978

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TABLE 18 (CONT)

AREA 0032 CHRISTCHURCH 43.8S 173.3E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.9	.0	.0	.0	.0	1.1	.0	1.2	.0	.0	.0	.0	1.2
1-2	.5	2.5	.8	.0	.0	.0	3.8	.2	1.5	.2	.0	.0	.0	2.0
3-4	.0	1.9	1.4	.2	.0	.0	3.6	.0	.6	1.1	.2	.0	.0	1.9
5-6	.0	.4	.9	.7	.0	.0	2.0	.0	.2	1.1	.3	.0	.0	1.6
7	.0	.1	1.5	.4	.0	.0	2.0	.0	.0	.8	.7	.2	.0	1.6
8-9	.0	.0	.1	.2	.0	.0	.2	.0	.0	.1	.4	.1	.0	.6
10-11	.0	.0	.1	.0	.0	.0	.1	.0	.0	.3	.2	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.1	.1	.1	.0	.2	.0	.0	*	*	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	*	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.9	4.9	1.6	.2	.0	13.2	.2	3.5	3.7	1.9	.3	.0	9.7

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.0	.3	.0	.0	.0	.0	.3	.2	.3	.0	.0	.0	.0	.5	
1-2	.0	.4	.3	.0	.0	.0	.6	.0	.7	.6	.0	.0	.0	1.3	
3-4	.0	.1	.8	.2	.0	.0	1.1	.0	.3	.8	.2	.0	.0	1.3	
5-6	.0	.0	.4	.2	.0	.0	.6	.0	.2	.7	.2	.2	.0	1.3	
7	.0	.0	.2	.1	.0	.1	.4	.0	.0	.3	.2	.1	.0	.6	
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	*	.2	.0	.0	.2	
10-11	.0	.0	.1	.1	.0	.0	.2	.0	.0	.0	.2	.1	.0	.3	
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	*	.0	.0	*	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.7	1.9	.8	.1	.1	3.7	.2	1.6	2.5	1.1	.4	.0	5.9	94.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.4	9.4	.3	.0	.0	.0	17.1	
1-2	1.7	18.5	6.1	.0	.0	.0	26.3	
3-4	.2	8.6	14.8	1.1	.0	.0	24.7	
5-6	.0	2.4	10.0	2.3	.3	.0	14.9	
7	.0	.6	6.6	3.1	.5	.2	11.0	
8-9	.1	.0	1.1	1.0	.1	.0	2.3	
10-11	.0	.0	1.0	.6	.1	.0	1.7	
12	.0	.0	.3	.3	.0	.0	.6	
13-16	.0	.0	.2	.6	.2	.0	1.0	
17-19	.0	.0	.0	.2	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.4	39.5	40.5	9.1	1.4	.2	100.0	1011

PERIOD: (OVER-ALL) 1950-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	9.6	12.4	8.5	4.0	1.9	.7	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	437	4
6-7	.0	1.6	6.5	6.7	7.3	3.6	1.6	.7	1.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	329	6
8-9	.1	.3	2.1	2.4	2.1	.9	.5	.3	.4	.3	.2	.0	.0	.0	.0	.1	.0	.0	.0	107	7
10-11	.0	1.2	1.1	1.1	1.3	.9	.4	.1	.2	.2	.0	.1	.2	.2	.0	.0	.0	.0	.0	75	7
12-13	.0	.0	7.6	.3	.8	.3	.3	.4	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	56	6
>13	.0	.0	.0	.5	.4	.2	.4	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	19	9
INDET	5.5	1.1	.8	.4	.4	.2	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	97	2
TOTAL	77	194	286	222	184	88	44	20	26	9	2	3	2	3	0	1	0	0	0	1121	5
PCT	6.9	13.7	25.5	19.8	16.4	7.9	3.9	1.8	2.3	.8	.2	.3	.2	.3	.0	.1	.0	.0	.0	100.5	

FEBRUARY

PERIOD: (PRIMARY) 1956-1978
(OVER-ALL) 1871-1978

AREA 0032 CHRISTCHURCH
43.8S 173.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	ND SIG WEA
N	1.9	.0	.7	.0	.0	.0	.0	2.6	.0	.0	4.4	.0	6.3	.7		86.0
NE	1.0	.9	.9	.0	.0	.0	.3	3.1	.9	.0	3.1	.0	3.9	.0		89.5
E	3.4	.9	2.8	.0	.0	.0	.0	7.1	3.2	.0	3.9	.0	1.9	.0		83.9
SE	5.9	3.4	2.3	.0	.0	.0	.0	11.6	1.9	.4	5.9	.0	.2	.0		80.4
S	6.3	1.8	2.2	.0	.0	.0	.0	10.3	1.1	.3	3.0	.0	1.5	.5		83.3
SW	4.7	2.8	2.3	.0	.0	.0	.0	9.8	1.3	.8	2.6	.0	1.7	.0		83.7
W	2.8	.0	.0	.0	.0	.0	.0	2.8	4.2	2.8	4.2	.0	.0	.0		86.0
NW	3.1	1.6	.0	.0	.0	.0	.0	4.7	.4	4.7	3.1	.0	1.6	.0		87.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	.0	.0		96.7
TOT PCT	3.2	1.3	1.4	.0	.0	.0	.1	6.0	1.0	.5	3.6	.0	2.6	.2		86.2
TOT OBS:	1194															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	ND SIG WEA
00603	3.5	.7	.7	.0	.0	.0	.0	5.0	1.1	.0	3.9	.0	4.3	.4		85.5
06609	2.2	.9	1.9	.0	.0	.0	.3	5.3	.9	.3	4.0	.0	2.2	.0		87.3
12615	3.7	2.5	1.2	.0	.0	.0	.0	7.4	1.5	1.0	3.4	.0	2.7	.2		84.0
18621	3.9	.9	1.7	.0	.0	.0	.0	6.4	.9	.4	4.7	.0	.9	.4		86.3
TOT PCT	3.3	1.4	1.4	.0	.0	.0	.1	6.1	1.1	.5	3.9	.0	2.6	.2		85.6
TOT OBS:	1244															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.0	5.6	4.4	1.5	.2	.0		12.6	12.5	14.7	12.2	9.3	13.6	12.2	10.8	13.7	17.3
NE	1.1	13.5	11.7	1.8	.0	.0		28.2	11.5	28.6	30.1	34.1	31.1	28.3	20.9	23.2	18.8
E	.8	6.1	3.3	.1	.0	.0		10.3	9.1	10.7	7.1	13.8	12.4	10.9	6.3	4.4	13.5
SE	.7	4.9	3.6	.4	.0	.0		9.6	10.7	9.9	19.9	9.8	9.1	9.7	9.7	8.2	5.8
S	.5	5.8	6.9	1.6	.2	.0		15.0	13.6	16.0	16.0	17.1	15.0	12.2	22.4	15.6	8.2
SW	.5	3.0	4.6	2.3	.6	.0		10.8	16.1	11.3	12.2	6.7	7.0	7.9	13.8	18.8	20.2
W	.3	1.3	1.1	.4	.0	.0		3.2	12.3	1.8	2.6	3.0	.9	4.2	5.6	3.3	4.8
NW	.2	2.3	2.1	.7	.2	.0		5.4	13.9	2.9	.0	2.8	10.0	9.4	1.5	4.0	7.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.9							4.9	.0	4.2	.0	3.4	.9	5.3	9.0	8.9	3.8
TOT OBS	130	558	491	115	15	0	1309		11.7	260	39	232	107	360	67	192	52
TOT PCT	9.9	42.6	37.5	8.8	1.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.5	5.7	2.7	.6	.1		12.6	12.5	14.4	10.6	12.0	14.4
NE	6.3	16.7	4.6	.6	.0		28.2	11.5	28.8	33.1	27.2	22.2
E	3.8	5.6	1.0	.0	.0		10.3	9.1	10.2	13.3	10.2	6.4
SE	2.5	5.5	1.6	.0	.0		9.6	10.7	11.2	9.6	9.7	7.7
S	2.5	7.9	3.8	.8	.1		15.0	13.6	16.0	16.4	13.8	14.0
SW	1.5	4.7	3.4	1.2	*		10.8	16.1	11.4	6.8	8.8	19.1
W	.9	1.3	.9	.1	.0		3.2	12.3	1.9	2.4	4.4	3.6
NW	1.0	2.5	1.7	.3	.0		5.4	13.9	2.5	5.1	8.1	4.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.9						4.9	.0	3.7	2.7	5.9	7.8
TOT OBS	351	652	257	47	2	1309		11.7	299	339	427	244
TOT PCT	26.8	49.8	19.6	3.6	.2		100.0		100.0	100.0	100.0	100.0

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43.8S 173.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

	WIND SPEED (KNOTS)									
HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.7	6.0	45.2	35.5	8.4	1.3	.0	11.6	100.0	299
06&09	2.7	4.4	39.2	42.2	10.3	1.2	.0	12.6	100.0	339
12&15	5.9	4.4	41.9	37.7	8.9	1.2	.0	11.7	100.0	427
18&21	7.8	5.7	45.5	33.2	7.0	.8	.0	10.6	100.0	244
TOT	64	66	558	491	115	15	0	11.7		1309
PCT	4.9	5.0	42.6	37.5	8.8	1.1	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.8	1.8	3.4	1.1		3.3
NE	16.5	4.7	6.3	3.2		2.9
E	2.8	1.3	2.1	3.6		4.9
SE	1.8	1.2	2.6	4.4		5.8
S	2.8	1.7	4.7	6.1		5.6
SW	2.0	1.6	3.0	3.6		5.3
W	1.1	.3	.4	.7		4.1
NW	1.7	.9	.8	.5		3.4
VAR	.0	.0	.0	.0		.0
CALM	2.7	.7	1.4	.7		3.3
TOT OBS	327	124	217	210	878	4.2
TOT PCT	37.2	14.1	24.7	23.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.1	.0	.2	.9	.9	.3	.1	.5	.1	8.9	
NE	.7	*	.0	1.0	2.2	2.7	.9	.2	.3	.1	22.7	
E	.2	.0	.2	.8	1.4	1.5	.5	.1	.0	.2	4.9	
SE	.2	.0	.3	.7	1.3	2.4	.6	.1	.2	.1	4.2	
S	.5	.0	.1	1.7	1.3	3.6	1.1	.2	.1	.1	6.5	
SW	.1	.0	.2	1.4	1.7	2.0	.2	.1	.0	*	4.5	
W	.1	.0	.0	.4	.1	.2	.2	.0	.0	.0	1.5	
NW	.0	.0	.0	.2	.3	.1	.1	*	.0	.1	3.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.1	.5	.7	.2	.0	.0	.1	3.9	
TOT OBS	16	1	7	56	85	125	36	8	10	6	528	878
TOT PCT	1.8	.1	.8	6.4	9.7	14.2	4.1	.9	1.1	.7	60.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

	VSBY (NM)							
CEILING (FEET)	* OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	1.2	1.7	1.8	1.8	1.8	1.8	1.8	1.8
* OR >5000	1.9	2.4	2.7	2.7	2.7	2.7	2.7	2.7
* OR >3500	5.3	6.4	6.6	6.6	6.6	6.6	6.6	6.6
* OR >2000	17.1	20.2	20.6	20.6	20.6	20.6	20.6	20.6
* OR >1000	24.3	29.2	30.0	30.0	30.0	30.0	30.0	30.0
* OR >600	27.9	35.4	36.5	36.5	36.5	36.5	36.5	36.5
* OR >300	28.2	36.1	37.3	37.3	37.3	37.3	37.3	37.3
* OR >150	28.2	36.2	37.4	37.4	37.4	37.4	37.4	37.4
* OR > 0	28.6	96.8	38.3	38.3	38.5	38.5	39.2	39.2
TOTAL	258	332	346	346	348	348	354	354

TOTAL NUMBER OF OBS: 903

PCT FREQ NH <5/8: 60.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
25.0	13.3	10.9	7.3	5.9	4.1	6.2	7.7	20.1	1.6	937

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.2	
	NO PCP	.2	.1	.1	.2	.1	.1	.1	.1	.0	.0	.8	
	TOT %	.2	.1	.1	.2	.1	.1	.1	.1	.0	.0	1.0	
1/2<1	PCP	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.2	
	NO PCP	.2	.3	.1	.2	.0	.1	.0	.0	.0	.0	.8	
	TOT %	.2	.3	.2	.2	.0	.2	.0	.0	.0	.0	1.0	
1<2	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.3	.4	*	*	.0	.0	.0	.0	.0	.0	.8	
	TOT %	.3	.4	.1	*	.0	.0	.0	.0	.0	.0	.8	
2<5	PCP	.0	.1	.0	.3	.1	.3	.0	.0	.0	.0	.7	
	NO PCP	.1	.3	.1	.1	.3	.2	.1	.0	.0	.2	1.4	
	TOT %	.1	.4	.1	.4	.4	.5	.1	.0	.0	.2	2.1	
5<10	PCP	.2	.6	.4	.5	.9	.4	.1	.1	.0	.0	3.3	
	NO PCP	2.5	3.4	1.5	2.0	3.6	3.4	.7	1.4	.0	1.0	19.4	
	TOT %	2.7	4.0	1.9	2.5	4.5	3.8	.8	1.5	.0	1.0	22.7	
10+	PCP	.1	.1	.1	.4	.8	.4	.0	.2	.0	.0	1.7	
	NO PCP	8.7	23.0	7.1	6.3	9.8	6.2	1.9	3.7	.0	3.9	70.7	
	TOT %	8.8	23.1	7.2	6.7	10.2	6.6	1.9	3.9	.0	3.9	72.3	
	TOT OBS												1193
	TOT PCT	12.3	28.2	9.7	9.9	15.3	11.1	3.0	5.4	.0	5.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	4-10	.2	.1	.1	.2	.0	.1	.0	.0	.0		.7	
	11-21	.0	.0	.0	*	.1	.0	.0	.1	.0		.2	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0		.1	
	TOT %	.2	.1	.1	.2	.1	.1	.1	.1	.0	.0	1.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.2	.1	.0	.1	.0	.0	.0		.6	
	11-21	.1	.1	*	*	.0	.1	.0	.0	.0		.3	
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	TOT %	.2	.3	.2	.2	.0	.2	.0	.0	.0	.0	1.0	
1<2	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.1	.1	.1	*	.0	.0	.0	.0	.0		.4	
	11-21	.2	.2	.0	.0	.0	.0	.0	.0	.0		.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.3	.4	.1	*	.0	.0	.0	.0	.0	.0	.8	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.1	.1	.2	.1	*	.0	.0	.0		.5	
	11-21	.0	.3	.1	.1	.2	.1	.1	.0	.0		.8	
	22+	.1	.1	.0	.1	.1	.4	.1	.0	.0		.8	
	TOT %	.1	.4	.2	.4	.4	.5	.1	.0	.0	.2	2.2	
5<10	0-3	.1	.2	.2	.2	.1	.2	.1	.1	.0	1.0	2.2	
	4-10	1.0	1.7	.9	.9	1.2	1.0	.4	.7	.0		7.9	
	11-21	.9	1.7	.7	1.3	2.4	1.5	.3	.4	.0		9.2	
	22+	.6	.4	.1	.1	.8	1.1	*	.4	.0		3.4	
	TOT %	2.7	4.0	1.9	2.5	4.5	3.7	.8	1.5	.0	1.0	22.7	
10+	0-3	.7	.8	.2	.4	.3	.4	.2	.1	.0	3.9	6.9	
	4-10	4.0	11.3	4.5	3.6	4.5	1.9	.8	1.5	.0		32.1	
	11-21	3.1	9.6	2.3	2.5	4.5	2.9	.7	1.6	.0		27.4	
	22+	1.2	1.3	.0	.3	.9	1.5	.3	.6	.0		6.0	
	TOT %	8.8	23.0	7.2	6.7	10.2	6.6	1.9	3.8	.0	3.9	72.3	
	TOT OBS												1195
	TOT PCT	12.3	28.2	9.7	9.9	15.3	11.1	3.0	5.4	.0	5.1	100.0	

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PERIOD: (PRIMARY) 1956-1978
(OVER-ALL) 1871-1978

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.4	.0	.8	7.6	9.7	15.7	4.2	.8	.4	.4	40.3	59.7	236
06&09	1.1	.0	.4	4.6	6.8	16.3	4.2	1.1	1.5	.4	36.5	63.5	263
12&15	3.7	.0	1.2	7.3	9.8	8.2	2.0	.0	.8	1.6	34.7	65.3	245
18&21	1.7	.6	.6	6.1	11.7	15.1	6.1	1.7	1.7	.0	45.3	54.7	179
TOT	16	1	7	59	86	127	37	8	10	6	357	566	923
PCT	1.7	.1	.8	6.4	9.3	13.8	4.0	.9	1.1	.7	38.7	61.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.7	1.4	1.8	1.4	25.2	69.5	282
06&09	.6	1.6	.3	1.9	23.6	72.0	322
12&15	1.2	.5	.5	2.9	19.9	75.0	408
18&21	1.7	.4	1.3	2.1	26.5	67.9	234
TOT	13	12	11	27	290	893	1246
PCT	1.0	1.0	.9	2.2	23.3	71.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NM >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NM <5/8 AND 5+	TOTAL OBS
00&03	.4	1.3	9.9	31.3	58.8	233
06&09	1.2	1.9	8.1	29.1	62.6	258
12&15	3.8	5.1	14.0	22.6	63.4	235
18&21	1.7	2.8	10.2	35.6	54.2	177
TOT	16	25	95	264	544	903
PCT	1.8	2.8	10.5	29.2	60.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.2	.6	1.4	.6	.3	.2	21	3.3
65/69	.0	.0	.3	.3	2.1	3.3	4.0	2.2	77	12.2
60/64	.0	.5	.3	.3	2.7	5.9	11.9	17.5	246	39.1
55/59	.0	.2	.0	.9	3.0	9.1	10.0	13.8	230	36.6
50/54	.0	.0	.2	.0	1.6	3.3	1.7	1.4	52	8.3
45/49	.0	.0	.0	.2	.0	.3	.0	.0	3	.5
TOTAL	0	4	6	12	68	142	176	221	629	100.0
PCT	.0	.6	1.0	1.9	10.8	22.6	28.0	35.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.6	.4	.1	.1	.4	.2	.8	.1	.0	.6
3.0	3.1	.8	.4	.6	.5	.6	2.5	.0	.8
6.3	15.3	4.3	1.7	3.9	3.3	.6	2.7	.0	1.1
3.3	10.4	4.5	5.9	6.2	4.6	.2	.3	.0	1.1
.2	.1	.4	.9	2.8	3.5	.3	.0	.0	.2
.0	.0	.0	.0	.3	.2	.0	.0	.0	.0
13.4	29.4	10.0	9.0	14.1	12.2	2.4	5.6	.0	3.8

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	78	74	70	61	54	51	49	61.9	305
06&09	75	72	69	61	54	50	49	60.9	339
12&15	77	71	67	59	53	50	48	59.5	431
18&21	70	66	64	59	53	51	50	58.6	243
TOT	78	72	68	60	54	50	48	60.3	1318

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&09	.0	2.4	16.3	38.2	25.2	17.9	79	123
06&09	.0	4.2	7.8	25.3	30.7	31.9	82	166
12&15	.0	4.4	10.1	16.5	28.2	40.7	84	248
18&21	.0	.9	8.5	14.5	29.1	47.0	86	117
TOT	0	22	68	147	186	231	83	654

PERIOD: (PRIMARY) 1956-1978
(OVER-ALL) 1871-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
17/19	.0	.0	.0	.0	.0	.1	.1	.1	3	.0	.3
14/16	.0	.0	.0	.7	.1	.6	.0	.0	14	.0	1.4
11/13	.0	.0	.0	.1	.7	.3	.4	.0	17	.0	1.6
9/10	.0	.0	.0	.3	1.2	1.0	.3	.1	29	.0	2.8
7/8	.0	.0	.1	1.0	1.1	.5	.0	.0	27	.1	2.5
6	.0	.0	.1	.8	1.1	.4	.3	.0	27	.0	2.6
5	.0	.1	1.1	2.4	.7	.3	.0	.0	47	.1	4.4
4	.0	.3	1.5	2.4	1.4	.3	.0	.0	62	.4	5.6
3	.0	.0	1.5	3.4	1.6	.0	.0	.0	68	.1	6.5
2	.0	.1	4.2	3.5	1.2	.3	.0	.0	95	.7	8.5
1	.0	1.0	4.2	5.2	.4	.0	.0	.0	111	.5	10.2
0	.0	2.2	6.2	4.0	.4	.0	.0	.0	132	1.0	11.8
-1	.1	2.1	6.0	3.0	.3	.0	.0	.0	119	.5	11.0
-2	.0	2.1	3.4	1.2	.2	.0	.0	.0	71	.1	6.8
-3	.7	2.3	3.5	.6	.2	.0	.0	.0	75	.1	7.1
-4	.2	2.6	2.3	.3	.1	.0	.0	.0	57	.3	5.2
-5	.2	2.2	1.4	.4	.0	.0	.0	.0	43	.0	4.2
-6	.4	.6	.3	.0	.0	.0	.0	.0	13	.0	1.3
-7/-9	.7	.8	.3	.1	.0	.0	.0	.0	19	.3	1.5
-9/-10	.2	.3	.0	.0	.0	.0	.0	.0	5	.0	.5
TOTAL	25	173	372	302	109	39	13	2	1035	42	993
PCT	2.4	16.7	35.9	29.2	10.5	3.8	1.3	.2	100.0	4.1	95.9

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.1	.0	.0	.0	.0	1.7
1-2	.2	2.1	.7	.0	.0	.0	3.0
3-4	.0	.9	1.8	.4	.0	.0	3.1
5-6	.0	.1	.9	.4	.0	.0	1.4
7	.0	.1	.8	.2	.1	.0	1.3
8-9	.0	.0	.2	.1	.0	.0	.3
10-11	.0	.0	.0	.4	.3	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.3	4.4	1.8	.4	.0	11.7

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	2.4	.0	.0	.0	.0	2.9
1-2	.4	8.0	2.0	.0	.0	.0	10.4
3-4	.0	3.4	4.2	.1	.0	.0	7.8
5-6	.0	1.1	3.1	.4	.0	.0	4.6
7	.0	.5	1.7	.6	.0	.0	2.7
8-9	.0	.0	.7	.4	.0	.0	1.1
10-11	.0	.0	.1	.5	.0	.0	.6
12	.0	.0	.1	.0	.0	.0	.1
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	15.4	12.0	2.2	.0	.0	30.5

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	1.2	.1	.0	.0	.0	1.5
1-2	.3	2.8	.8	.0	.0	.0	3.9
3-4	.0	1.2	.9	.0	.0	.0	2.1
5-6	.0	.5	.8	.0	.0	.0	1.3
7	.0	.0	.2	.1	.0	.0	.4
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	5.7	3.2	.1	.0	.0	9.4

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.1	.1	.0	.0	.0	1.5
1-2	.1	2.3	.2	.0	.0	.0	2.7
3-4	.0	1.1	.9	.0	.0	.0	2.0
5-6	.0	.2	1.3	.1	.0	.0	1.6
7	.0	.0	.3	.1	.0	.0	.4
8-9	.0	.1	.3	.1	.0	.0	.5
10-11	.0	.0	*	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.7	3.2	.4	.0	.0	8.7

PERIOD: (OVER-ALL) 1963-197A

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.1	.0	.0	.0	.8
1-2	.2	3.3	.9	.0	.0	.0	4.4
3-4	.0	1.6	2.2	.0	.0	.0	3.7
5-6	.0	.2	2.9	.1	.0	.0	3.3
7	.0	.3	.4	.5	.0	.0	1.2
8-9	.0	.3	.3	.1	.0	.0	.7
10-11	.0	.0	.3	.3	.1	.0	.7
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	6.4	7.2	1.5	.1	.0	15.4

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.3	1.8	.9	.0	.0	.0	3.0
3-4	.0	.7	1.4	.1	.0	.0	2.2
5-6	.0	.0	.9	.8	.0	.0	1.7
7	.0	.1	.7	.6	.0	.0	1.4
8-9	.0	.0	.3	.2	.4	.0	.8
10-11	.0	.0	.3	.6	.2	.0	1.0
12	.0	.0	.0	.1	.1	.0	.3
13-16	.0	.0	.1	.5	.0	.0	.6
17-19	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.7	4.6	2.8	.8	.0	11.2

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.4	.9	.3	.0	.0	.0	1.7
3-4	.0	.3	.1	.0	.0	.0	.4
5-6	.0	.0	.3	.1	.0	.0	.4
7	.0	.0	.1	.1	.0	.0	.2
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.1	.2	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	1.5	.9	.6	.0	.0	3.4

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.3	.0	.0	.0	.0	.4	
1-2	.0	.8	.3	.0	.0	.0	1.1	
3-4	.0	.5	.6	.1	.0	.0	1.1	
5-6	.0	.0	.8	.3	.1	.0	1.3	
7	.0	*	.2	.3	.0	.0	.5	
8-9	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.0	.2	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	1.5	2.0	.9	.1	.0	4.7	94.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.8	7.1	.4	.0	.0	.0	14.3	
1-2	1.9	22.5	6.1	.0	.0	.0	30.5	
3-4	.0	9.4	12.0	.8	.0	.0	22.2	
5-6	.0	2.1	11.1	2.2	.1	.0	15.5	
7	.0	1.0	4.3	2.5	.1	.0	7.9	
8-9	.0	.4	2.1	1.0	.4	.0	3.9	
10-11	.0	.0	.9	2.2	.5	.0	3.6	
12	.0	.0	.1	.3	.1	.0	.5	
13-16	.0	.0	.3	1.3	.0	.0	1.5	
17-19	.0	.0	.0	.0	.1	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								775
TOT PCT	8.8	42.5	37.2	10.2	1.4	.0	100.0	

PERIOD: (OVER-ALL) 1950-197A

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	10.6	12.7	11.1	5.6	1.1	.7	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	382	4
6-7	.0	1.2	4.7	6.1	7.5	3.6	1.4	.7	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	232	6
8-9	.0	.7	1.8	1.8	2.1	1.9	2.3	.5	1.5	.1	.2	.1	.2	.0	.0	.0	.0	.0	.0	117	8
10-11	.0	1.0	1.6	.7	.7	.5	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	41	5
12-13	.0	.0	2.7	.2	.5	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	32	4
>13	.0	.0	.0	1.0	.2	.2	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	16	7
INDET	3.5	.6	1.4	1.0	.8	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	67	3
TOTAL	40	125	220	194	194	67	39	11	23	4	3	3	2	0	0	0	0	0	0	885	5
PCT	4.5	14.1	24.9	21.9	17.4	7.6	4.4	1.2	2.6	.5	.3	.3	.2	.0	.0	.0	.0	.0	.0	100.0	

MARCH

PERIOD: (PRIMARY) 1938-1977
(OVER-ALL) 1863-1977

AREA 0032 CHRISTCHURCH
43.7S 173.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	1.1	.3	.7	.0	.0	.0	.0	1.5	.0	.0	2.3	.0	1.0		.0	95.3
NE	.9	.3	2.0	.0	.0	.0	.0	3.2	1.2	.0	4.9	1.2	1.9		.0	87.7
E	4.3	3.1	6.5	.0	.0	.0	.0	12.8	2.3	.0	5.7	.0	1.7		.0	77.6
SE	3.0	.0	3.5	.0	.0	.0	.0	6.5	1.1	.0	5.7	.5	.0		1.1	85.0
S	4.3	3.6	4.5	.0	.0	.0	.0	12.4	4.7	.0	1.6	.3	.7		.7	79.7
SW	2.4	3.2	1.9	.0	.0	.0	.0	7.5	2.6	.0	.9	.0	1.5		.7	86.8
W	.0	4.5	.0	.0	.0	.0	.0	4.5	2.3	.0	2.3	.0	3.0		.0	88.0
NW	.0	.0	3.4	.0	.0	.0	.0	3.4	1.7	1.7	3.0	.0	.4		.0	89.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	1.6	.0	1.6	.0	.0	.0	.0	3.3	6.6	.0	4.9	3.3	4.9		.0	77.0
TOT PCT	2.1	1.5	2.7	.0	.0	.0	.0	6.0	2.2	.1	3.4	.6	1.5		.3	85.9
TOT OBS:	1017															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	2.7	1.2	1.5	.0	.0	.0	.0	5.4	2.3	.0	3.1	.4	1.2		.0	87.6
06&09	2.4	1.6	2.4	.0	.0	.0	.0	6.0	.8	.0	3.6	.4	2.4		.8	85.9
12&15	2.0	1.1	2.8	.0	.0	.0	.0	5.9	4.2	.3	2.0	.8	.8		.6	85.3
18&21	1.0	2.0	4.6	.0	.0	.0	.0	7.1	.5	.0	7.1	.5	1.5		.0	83.2
TOT PCT	2.1	1.4	2.7	.0	.0	.0	.0	6.0	2.3	.1	3.6	.6	1.4		.4	85.6
TOT OBS:	1058															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	6.7	4.8	2.1	.4	.3		15.0	14.4	16.9	8.5	13.2	15.8	13.1	16.8	14.0	22.2
NE	.9	11.1	10.2	1.6	.2	.0		24.1	11.7	21.8	29.9	34.5	22.7	27.3	17.1	19.8	12.5
E	1.0	4.7	2.4	.6	.0	.0		8.7	9.8	5.2	16.5	18.0	11.3	7.5	3.5	9.0	2.1
SE	.9	5.2	2.7	.4	.0	.0		9.1	9.9	8.3	15.2	9.0	10.8	8.7	6.8	9.8	9.0
S	1.4	5.6	4.8	2.2	.5	.0		14.6	13.7	16.3	10.4	12.6	18.5	11.8	26.1	11.8	11.8
SW	.4	3.9	5.0	2.9	.9	.1		13.1	16.8	16.3	14.6	5.9	11.3	11.8	16.0	15.5	16.7
W	.4	1.3	1.5	.6	.0	.0		3.7	12.4	4.5	.0	1.1	2.9	3.9	2.7	4.3	10.1
NW	.3	2.7	1.9	.7	.1	.0		5.7	12.1	4.5	2.4	3.9	5.0	7.9	6.5	4.3	10.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.9							5.9	.0	6.0	2.4	1.9	1.7	8.1	4.3	11.3	5.6
TOT OBS	140	481	389	129	25	5	1169		12.1	248	41	161	120	285	92	150	72
TOT PCT	12.0	41.1	33.3	11.0	2.1	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.1	7.1	3.3	1.0	.5		15.0	14.4	15.7	14.3	14.0	16.7
NE	6.1	12.6	4.8	.6	.0		24.1	11.7	22.9	29.4	24.8	17.5
E	3.6	3.8	1.1	.3	.0		8.7	9.8	6.8	15.1	6.6	6.8
SE	3.2	4.3	1.6	*	.0		9.1	9.9	9.3	9.8	8.2	9.6
S	3.8	6.2	2.8	1.6	.2		14.6	13.7	15.5	15.1	15.3	11.8
SW	2.2	4.4	4.5	1.8	.2		13.1	16.8	16.1	8.2	12.9	15.9
W	.9	1.5	1.3	.0	.0		3.7	12.4	3.9	1.9	3.6	6.2
NW	1.9	2.5	1.2	.2	.0		5.7	12.1	4.2	4.4	7.6	6.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.9						5.9	.0	5.5	1.8	7.2	9.5
TOT OBS	360	494	242	62	11	1169		12.1	289	281	377	222
TOT PCT	30.8	42.3	20.7	5.3	.9		100.0		100.0	100.0	100.0	100.0

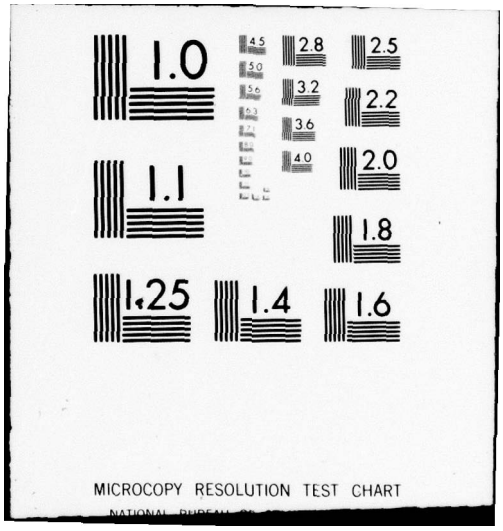
AD-A073 875 NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO), SELECTE--ETC(U)
SEP 79

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MICROCOPY RESOLUTION TEST CHART

MARCH

PERIOD: (PRIMARY) 1938-1977
(OVER-ALL) 1863-1977

AREA 0032 CHRISTCHURCH
43.7S 173.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	5.5	5.9	43.9	34.9	6.9	2.1	.7	11.6	100.0	289
06&09	1.8	4.6	40.9	37.7	11.4	3.2	.4	13.1	100.0	281
12&15	7.2	5.8	37.9	33.7	12.7	2.1	.5	12.4	100.0	377
18&21	9.5	8.6	43.2	24.8	13.1	.9	.0	10.9	100.0	222
TOT	69	71	481	389	129	25	5	12.1		1169
PCT	5.9	6.1	41.1	33.3	11.0	2.1	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.0	2.7	5.2	2.4		4.2
NE	10.9	3.0	6.8	5.8		4.0
E	3.3	.0	2.0	3.9		4.8
SE	2.1	.6	2.3	2.6		5.0
S	2.3	1.2	4.9	6.6		6.0
SW	2.5	1.7	4.8	4.4		5.5
W	.9	.4	1.1	.2		3.8
NW	1.7	.8	1.1	.7		3.9
VAR	.0	.0	.0	.0		.0
CALM	3.2	.4	1.2	1.8		3.7
TOT OBS	237	80	217	204	739	4.6
TOT PCT	32.1	10.8	29.4	27.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.1	.0	.1	.7	.9	1.5	.7	.2	.1	.0	10.9	
1.2	.0	.3	1.4	3.2	2.6	.8	.3	.2	.7	15.8	
.4	.1	.4	.9	1.1	1.3	.3	.0	.0	.1	4.0	
*	.1	.1	.3	2.2	.3	.6	.3	.0	.1	3.6	
.3	.1	.0	2.2	4.1	2.5	1.1	.0	.0	.0	4.7	
.0	.0	.1	1.8	2.9	2.6	.4	.0	.0	.0	5.7	
.0	.1	.0	.2	.1	.3	.0	.0	.1	.0	1.7	
.0	*	.0	.4	.3	.2	.3	*	.0	.0	3.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.1	.0	.1	.3	.5	1.4	.0	.0	.3	.1	3.8	
16	4	9	60	114	93	31	6	5	7	394	739
2.2	.5	1.2	8.1	15.4	12.6	4.2	.8	.7	.9	53.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >4500	1.3	1.5	1.5	1.5	1.6	1.6	1.6	1.6
* OR >3000	2.0	2.2	2.2	2.2	2.4	2.4	2.4	2.4
* OR >1500	5.4	6.5	6.5	6.5	6.6	6.6	6.6	6.6
* OR >2000	14.3	18.6	18.9	18.9	19.0	19.0	19.0	19.0
* OR >1000	25.0	32.8	33.9	34.1	34.2	34.2	34.2	34.2
* OR >600	29.7	39.9	41.6	42.1	42.3	42.4	42.4	42.4
* OR >300	30.0	40.7	42.8	43.3	43.5	43.6	43.6	43.6
* OR >150	30.0	40.7	43.1	43.6	43.7	44.1	44.1	44.1
* OR > 0	30.4	41.2	43.9	44.8	44.9	45.4	46.2	46.2
TOTAL	230	312	332	339	340	344	350	350

TOTAL NUMBER OF OBS: 757 PCT FREQ NH <5/8: 53.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
20.2	11.0	10.2	6.7	4.7	6.0	6.6	10.7	22.2	1.7	806

MARCH

PERIOD: (PRIMARY) 1938-1977
(OVER-ALL) 1863-1977

TABLE 8

AREA 0032 CHRISTCHURCH
43.7S 173.2E

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	*	.1	.0	.1	.0	.0	.0	.0	.0	.3	
	NO PCP	.0	.4	.2	*	.1	.0	.1	*	.0	.2	1.1	
	TOT %	*	.5	.3	*	.2	.0	.1	*	.0	.2	1.4	
1/2<1	PCP	.0	.0	.0	.1	*	*	.0	.1	.0	.0	.3	
	NO PCP	.2	.1	.0	.0	.0	.0	.0	*	.0	.0	.4	
	TOT %	.2	.1	.0	.1	*	*	.0	.1	.0	.0	.7	
1<2	PCP	.0	.0	.0	*	*	.0	.0	.1	.0	.0	.2	
	NO PCP	.2	.3	.0	.0	.0	.1	.0	.0	.0	.1	.7	
	TOT %	.2	.3	.0	*	*	.1	.0	.1	.0	.1	.9	
2<5	PCP	.0	.2	.3	.1	.3	.2	.0	.0	.0	.0	1.2	
	NO PCP	.2	.2	.3	.3	.1	.5	.0	.0	.0	.1	1.8	
	TOT %	.2	.5	.6	.4	.4	.7	.0	.0	.0	.1	2.9	
5<10	PCP	.2	.4	.4	.2	.8	.6	*	.0	.0	.2	2.9	
	NO PCP	2.2	4.4	1.5	2.4	3.7	3.5	.8	1.2	.0	1.0	20.7	
	TOT %	2.4	4.8	1.9	2.6	4.5	4.1	.9	1.2	.0	1.2	23.7	
10+	PCP	.0	.1	.3	.1	.5	.1	.1	.0	.0	.0	1.2	
	NO PCP	12.1	18.4	5.5	5.7	8.5	8.1	2.2	4.4	.0	4.4	69.3	
	TOT %	12.1	18.5	5.8	5.8	9.0	8.2	2.3	4.4	.0	4.4	70.4	
	TOT OBS												1018
	TOT PCT	15.1	24.8	8.6	9.0	14.2	13.2	3.3	5.8	.0	6.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.2	*	.1	.0	.1	*	.0	.2	.6	
	4-10	.0	.1	.0	.0	.1	.0	.0	.0	.0		.2	
	11-21	*	.4	.2	.0	.0	.0	.0	.0	.0		.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	*	.5	.3	*	.2	.0	.1	*	.0	.2	1.3	
1/2<1	0-3	.1	.0	.0	.1	.0	.0	.0	.1	.0	.0	.3	
	4-10	.1	.0	.0	.0	.0	.0	.0	*	.0		.2	
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	*	*	.0	.0	.0		.1	
	TOT %	.2	.1	.0	.1	*	*	.0	.1	.0	.0	.7	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.1	.3	.1	*	.0	.0	.0	.1	.0		.6	
	11-21	.1	.0	.0	*	*	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.1	.1	.0	.0		.2	
	TOT %	.2	.3	.1	.1	*	.1	.1	.1	.0	.1	1.1	
2<5	0-3	.0	.1	.0	.1	*	.1	.0	.0	.0	.1	.5	
	4-10	.2	.3	.1	.4	.5	.1	.0	.0	.0		1.6	
	11-21	.1	.5	.2	.0	.2	.3	.0	.0	.0		1.2	
	22+	.0	*	.3	.0	.2	.2	.0	.0	.0		.7	
	TOT %	.4	.9	.6	.5	.9	.7	.0	.0	.0	.1	4.0	
5<10	0-3	.0	.1	.3	.2	.3	.1	.1	.2	.0	1.2	2.5	
	4-10	1.6	1.3	.7	1.2	1.6	.9	.3	.6	.0		8.3	
	11-21	.4	2.7	.8	.9	1.7	1.7	.2	.3	.0		8.7	
	22+	.5	.6	.1	.1	.9	1.4	.2	.1	.0		3.9	
	TOT %	2.4	4.7	2.0	2.6	4.4	4.1	.9	1.2	.0	1.2	23.4	
10+	0-3	.5	.8	.5	.4	.8	.1	.3	*	.0	4.4	7.9	
	4-10	4.7	9.3	3.7	3.2	3.5	2.8	.7	1.9	.0		29.8	
	11-21	4.7	6.8	1.3	1.8	3.1	3.2	1.2	1.6	.0		23.6	
	22+	1.9	1.3	.3	.2	1.5	2.2	.0	.7	.0		8.2	
	TOT %	11.8	18.2	5.7	5.6	8.9	8.3	2.3	4.3	.0	4.4	69.5	
	TOT OBS												1042
	TOT PCT	15.0	24.7	8.6	8.9	14.5	13.3	3.3	5.7	.0	6.0	100.0	

MARCH

PERIOD: (PRIMARY) 1938-1977
(OVER-ALL) 1863-1977

AREA 0032 CHRISTCHURCH
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	2.2	.0	.4	6.2	14.7	13.8	4.9	.4	.9	.0	43.6	56.4	225
06&09	2.6	.5	1.6	7.3	8.8	10.9	5.2	1.6	.5	1.0	39.9	60.1	193
12&15	1.4	.0	.9	9.0	19.0	9.5	1.9	.0	.5	1.4	43.6	56.4	211
18&21	2.0	2.0	2.0	10.7	17.3	14.7	5.3	1.3	.7	1.3	57.3	42.7	150
TOT	16	4	9	63	116	94	33	6	5	7	353	424	779
PCT	2.1	.5	1.2	8.1	14.9	12.1	4.2	.8	.6	.9	45.3	54.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.8	.0	.8	5.3	19.0	74.1	263
06&09	1.9	.8	.8	2.7	25.3	68.5	257
12&15	1.4	.3	.8	3.1	24.6	69.8	358
18&21	2.0	2.5	2.0	4.9	25.5	63.2	204
TOT	16	8	11	42	255	750	1082
PCT	1.5	.7	1.0	3.9	23.6	69.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	2.3	2.7	12.6	31.5	55.9	222
06&09	2.7	5.4	14.1	28.8	57.1	184
12&15	1.5	3.0	12.3	32.5	55.2	203
18&21	2.0	6.8	18.2	39.9	41.9	148
TOT	16	32	106	248	403	757
PCT	2.1	4.2	14.0	32.8	53.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.3	.0	.0	.2	.5	.3	.0	.0	8	1.3
65/69	.0	.2	.0	.8	1.0	2.2	2.7	1.2	48	8.1
60/64	.0	.2	.3	.5	1.2	4.7	11.1	15.3	198	33.2
55/59	.0	.2	.3	.5	3.4	11.1	13.3	17.1	273	45.8
50/54	.0	.0	.0	.9	1.7	3.0	3.4	2.5	66	11.1
45/49	.0	.0	.0	.0	.3	.0	.2	.0	3	.5
TOTAL	2	3	4	15	48	127	182	215	596	100.0
PCT	.3	.5	.7	2.5	8.1	21.3	30.5	36.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.3	.0	*	.1	.0	.0	.7	.0	.0
2.6	2.9	.3	.1	.2	.4	.3	1.2	.0	.2
8.5	11.8	2.9	.8	3.6	2.2	.6	1.7	.0	1.0
5.3	11.7	6.4	6.4	6.4	5.7	1.0	1.0	.0	1.8
.3	1.2	.3	.3	3.4	4.1	.8	.2	.0	.3
.0	.0	.0	.2	.3	.0	.0	.0	.0	.0
16.8	27.9	9.9	7.9	14.1	12.5	2.7	4.9	.0	3.4

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	72	68	60	53	50	50	60.5	288
06&09	77	70	67	59	53	50	46	59.3	273
12&15	76	70	66	58	52	50	44	58.4	370
18&21	69	67	64	57	50	46	45	57.1	216
TOT	76	70	67	59	52	49	45	58.9	1147

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	1.7	6.8	8.5	22.9	29.7	30.5	81	118
06&09	.7	2.9	10.1	19.6	39.1	27.5	82	138
12&15	.0	3.3	5.8	19.5	26.6	44.8	85	241
18&21	.0	1.7	10.1	25.2	28.6	34.5	84	119
TOT	3	22	55	131	187	223	83	616

MARCH

PERIOD: (PRIMARY) 1938-1977
(OVER-ALL) 1863-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.0	.1	.2	3	.0	.4
11/13	.0	.0	.0	.1	.1	.4	.4	.0	8	.0	.9
9/10	.0	.0	.0	.1	.7	.7	.8	.0	18	.0	2.1
7/8	.0	.0	.0	.2	1.7	2.0	.9	.0	41	.2	4.6
6	.0	.0	.0	.0	.9	1.3	.0	.0	19	.1	2.1
5	.0	.0	.1	.8	3.1	1.2	.0	.0	44	.0	5.2
4	.0	.0	.5	1.1	2.5	.6	.1	.0	40	.2	4.5
3	.0	.0	.9	2.1	1.7	.7	.0	.0	46	.1	5.3
2	.0	.0	1.1	3.8	3.9	.4	.1	.0	78	.6	8.6
1	.0	.5	1.9	4.9	3.3	.2	.0	.0	91	.5	10.3
0	.0	.5	3.4	5.6	3.9	.1	.0	.0	114	.7	12.8
-1	.0	.8	2.2	5.8	2.1	.4	.0	.0	96	.4	10.8
-2	.1	.4	2.5	4.4	.9	.1	.0	.0	71	.1	8.3
-3	.0	.7	3.3	1.5	1.4	.0	.0	.0	59	.2	6.7
-4	.1	.4	2.4	1.9	.1	.0	.0	.0	41	.1	4.7
-5	.1	.9	1.3	1.5	.2	.1	.0	.0	36	.2	4.0
-6	.1	.5	.1	.5	.0	.0	.0	.0	10	.1	1.1
-7/-8	.2	.5	.6	.1	.0	.0	.0	.0	12	.0	1.4
-9/-10	.0	.9	.4	.4	.0	.0	.0	.0	14	.0	1.7
-11/-13	.0	.1	.1	.0	.0	.0	.0	.0	2	.0	.2
-14/-16	.1	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
-20/-22	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	7	53	176	294	225	69	19	2	845	33	812
PCT	.8	6.3	20.8	34.8	26.6	8.2	2.2	.2	100.0	3.9	96.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	2.1	.0	.0	.0	.0	2.8
1-2	.2	2.7	1.4	.0	.0	.0	4.2
3-4	.0	1.7	1.7	.1	.0	.0	3.5
5-6	.0	.1	1.3	.3	.0	.0	1.6
7	.0	.3	.3	.8	.2	.0	1.5
8-9	.0	.0	.7	.6	.0	.0	1.3
10-11	.0	.0	.4	.4	.0	.0	.8
12	.0	.0	.3	.1	.1	.0	.5
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.8	6.0	2.5	.3	.0	16.5

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	3.3	.3	.0	.0	.0	3.9
1-2	.6	6.3	3.1	.0	.0	.0	10.0
3-4	.2	2.3	4.2	.4	.0	.0	7.1
5-6	.2	.5	2.0	.3	.0	.0	3.0
7	.0	.5	.5	.5	.0	.0	1.4
8-9	.0	.2	.2	.3	.0	.0	.6
10-11	.0	.0	.2	.3	.2	.0	.7
12	.0	.0	*	*	*	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	13.0	10.5	1.9	.2	.0	26.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	1.1	.0	.0	.0	.0	1.9
1-2	.1	2.8	.9	.0	.0	.0	3.9
3-4	.0	1.4	.5	.1	.0	.0	2.0
5-6	.0	.1	.2	.0	.0	.0	.3
7	.0	.0	.2	.3	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	5.4	1.8	.8	.0	.0	9.0

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.5	.0	.0	.0	.0	.8
1-2	.2	2.8	.9	.0	.0	.0	3.9
3-4	.0	.6	.8	.0	.0	.0	1.4
5-6	.0	.2	.6	.3	.0	.0	1.0
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.2	*	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.1	2.5	.3	.0	.0	7.5

PERIOD: (OVER-ALL) 1963-1977

MARCH

TABLE 18 (CONT)

AREA 0032 CHRISTCHURCH 43.7S 173.2E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.2	.0	.0	.0	.0	1.8
1-2	.5	1.7	1.0	.0	.0	.0	3.1
3-4	.0	2.1	2.2	.0	.0	.0	4.3
5-6	.0	.3	1.0	.0	.0	.0	1.3
7	.0	.3	.4	.5	.0	.0	1.2
8-9	.0	.0	.3	1.0	.0	.0	1.3
10-11	.0	.0	.1	.1	.2	.0	.4
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	5.5	5.0	1.7	.2	.0	13.5

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.2	.0	.0	.0	.0	1.2
1-2	.2	1.4	.8	.0	.0	.0	2.3
3-4	.0	1.2	2.3	.5	.0	.0	4.0
5-6	.0	.2	1.1	.8	.2	.0	2.2
7	.0	.0	.8	.5	.0	.0	1.3
8-9	.0	.0	.2	.3	.2	.0	.6
10-11	.0	.0	*	*	.2	.0	.2
12	.0	.0	.2	.5	.0	.0	.6
13-16	.0	.0	.0	.4	.0	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.0	5.3	2.9	.5	.0	12.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.3	.0	.0	.0	.0	.6
1-2	.0	.1	.5	.0	.0	.0	.6
3-4	.0	.4	.4	.1	.0	.0	.9
5-6	.2	.0	.3	.0	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	.8	1.2	.2	.0	.0	2.6

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	*	.8	.0	.0	.0	.0	.9	
1-2	.0	1.0	.2	.0	.0	.0	1.2	
3-4	.0	.4	1.1	.0	.0	.0	1.5	
5-6	.0	.3	.3	.2	.0	.0	.8	
7	.0	.0	.0	.0	.2	.0	.2	
8-9	.0	.0	.2	.2	.0	.0	.3	
10-11	.0	.0	.3	*	.0	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	*	.0	.0	*	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	*	2.5	2.1	.4	.2	.0	5.2	93.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	9.7	10.6	.3	.0	.0	.0	20.5	
1-2	1.7	18.7	8.7	.0	.0	.0	29.1	
3-4	.2	10.0	13.1	1.2	.0	.0	24.4	
5-6	.3	1.7	6.6	1.8	.2	.0	10.6	
7	.0	1.1	2.3	2.4	.3	.0	6.0	
8-9	.0	.2	1.7	2.4	.2	.0	4.4	
10-11	.0	.0	1.1	.9	.5	.0	2.4	
12	.0	.0	.5	.8	.2	.0	1.4	
13-16	.0	.0	.0	.9	.0	.0	.9	
17-19	.0	.0	.0	.2	.0	.0	.2	
20-22	.0	.0	.0	.2	.0	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								663
TOT PCT	11.8	42.1	34.2	10.7	1.2	.0	100.0	

PERIOD: (OVER-ALL) 1953-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.2	11.2	13.3	5.3	2.1	1.0	.3	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	278	3
6-7	.0	.9	5.4	6.4	5.5	3.1	1.7	.8	1.8	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	201	7
8-9	.1	.8	2.1	2.6	1.2	2.3	1.5	.8	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	94	7
10-11	.0	3.1	.8	.5	.8	.8	.3	.6	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	57	6
12-13	.0	.0	3.1	.1	.3	.3	.1	.0	.3	.0	.0	.3	.0	.0	.0	.0	.1	.0	.0	35	7
>13	.0	.0	.0	.6	.5	.1	.4	.0	.3	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	17	10
INDET	5.3	.9	1.3	1.9	1.0	.8	.5	.0	.3	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	95	4
TOTAL	59	131	201	136	88	65	37	19	27	3	5	4	0	0	0	1	1	0	0	777	5
PCT	7.6	16.9	25.9	17.5	11.3	8.4	4.8	2.4	3.5	.4	.6	.5	.0	.0	.0	.1	.1	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1873-1977

AREA 0032 CHRISTCHURCH
43.7S 173.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	.6	.0	1.4	.0	.0	.0	.0	2.0	1.1	.0	1.7	.3	1.1		.0	93.9
NE	1.7	.0	2.2	.0	.0	.0	.0	3.8	1.3	.6	5.1	.3	.6		.0	88.3
E	5.3	.0	4.1	.0	.0	.0	.0	9.4	2.0	1.2	9.8	.0	.0		.0	76.6
SE	6.9	.0	.5	.0	.0	.0	.0	7.3	2.3	1.8	7.3	.0	.0		.0	81.2
S	6.4	.5	1.2	.0	.0	.0	.0	8.2	5.2	.5	3.8	.0	.5		.5	81.3
SW	6.2	.2	1.5	.0	.0	.0	.0	7.9	8.0	.2	6.9	.7	1.5		.2	74.8
W	.0	.0	1.7	.0	.0	.0	.0	1.7	.0	.0	8.9	.0	.0		.0	89.4
NW	.0	.0	1.6	.0	.0	.0	.0	1.6	.0	.0	2.0	.0	.0		.0	96.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	1.5	.0	.0	.0	.0	.0	.0	1.5	1.5	.0	4.6	1.5	.0		.0	90.8
TOT PCT	3.3	.1	1.6	.0	.0	.0	.0	5.0	3.0	.4	5.0	.3	.6		.1	85.6
TOT OBS:	944															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	2.6	.0	.4	.0	.0	.0	.0	3.1	3.5	.0	5.3	.9	.4		.0	86.8
06&09	3.3	.0	.8	.0	.0	.0	.0	4.1	1.2	.8	3.7	.0	1.2		.0	88.8
12&15	4.1	.0	2.0	.0	.0	.0	.0	6.1	3.5	.6	3.8	.0	.6		.0	85.5
18&21	2.7	.5	3.3	.0	.0	.0	.0	6.5	9.3	.0	8.7	.5	.5		.5	79.9
TOT PCT	3.3	.1	1.6	.0	.0	.0	.0	5.0	2.9	.4	5.0	.3	.7		.1	85.6
TOT OBS:	998															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.3	7.3	6.8	1.2	.1	.0		16.8	12.0	17.4	23.2	13.1	13.0	18.3	13.2	19.6	16.3
NE	1.3	8.4	8.8	1.1	.0	.0		19.8	11.4	16.6	22.3	28.5	20.2	20.5	16.7	15.1	15.2
E	.8	3.3	2.0	.4	.1	.0		6.6	9.7	8.6	3.6	5.0	5.4	7.5	3.1	7.4	4.3
SE	.2	3.0	1.7	.4	.1	.0		5.4	10.6	4.1	4.5	5.1	9.0	5.1	8.3	4.6	5.4
S	.6	6.3	6.6	1.9	.4	.1		15.9	13.9	13.6	26.8	13.3	17.8	16.4	19.4	15.2	21.7
SW	.6	4.8	4.3	3.3	.9	.4		15.9	16.5	16.3	8.0	16.4	17.5	12.8	21.9	16.7	22.8
W	.8	2.9	1.7	.3	.1	.0		5.8	10.6	6.9	1.8	4.0	7.8	5.9	10.1	4.6	3.9
NW	.3	3.3	2.9	.5	.0	.0		6.6	11.8	9.1	9.8	4.7	4.5	6.5	3.1	7.9	6.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.1							7.1	.0	7.1	.0	9.9	4.8	7.0	4.2	9.0	4.3
TOT OBS	143	432	396	100	19	2	1092		11.7	225	28	181	83	301	72	156	46
TOT PCT	13.1	39.6	36.3	9.2	1.7	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.4	8.1	3.7	.6	.0		16.8	12.0	18.4	13.1	17.3	18.8
NE	4.6	11.6	3.2	.4	.0		19.8	11.4	17.2	25.9	19.8	15.1
E	2.7	3.1	.7	.1	.0		6.6	9.7	8.0	5.1	6.6	6.7
SE	2.1	2.5	.7	.1	.0		5.4	10.6	4.2	6.3	5.8	4.8
S	3.8	6.8	4.1	1.1	.1		15.9	13.9	15.0	14.7	17.0	16.7
SW	3.1	5.0	5.7	2.0	.1		15.9	16.5	15.4	16.8	14.5	18.1
W	2.1	2.6	1.2	.2	.0		5.8	10.6	6.3	5.2	6.7	4.3
NW	1.4	3.8	1.4	.0	.0		6.6	11.8	9.2	4.6	5.8	7.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	7.1						7.1	.0	6.2	8.3	6.4	7.9
TOT OBS	342	472	226	49	3	1092		11.7	293	284	373	202
TOT PCT	31.3	43.2	20.7	4.5	.3		100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1873-1977

AREA 0032 CHRISTCHURCH
43.7S 173.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	6.3	6.7	40.7	36.8	7.5	2.0	.0	11.4	100.0	253
06&09	8.3	3.4	38.3	39.4	9.8	.8	.0	11.8	100.0	264
12&15	6.4	6.2	38.1	36.7	10.7	1.6	.3	12.1	100.0	373
18&21	7.9	7.9	42.6	30.7	7.4	3.0	.5	11.2	100.0	202
TOT	78	65	432	396	100	19	2	11.7		1092
PCT	7.1	6.0	39.6	36.3	9.2	1.7	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	8.2	2.1	5.1	2.7		3.6
NE	10.6	3.6	5.8	3.4		3.5
E	2.2	.6	1.5	1.3		4.2
SE	.9	.8	1.5	1.8		5.3
S	3.3	2.5	4.1	4.8		5.2
SW	3.1	3.7	5.9	4.0		5.1
W	2.1	.2	1.5	.4		3.5
NW	1.9	.7	1.7	1.2		4.4
VAR	.0	.0	.0	.0		.0
CALM	3.5	1.7	1.5	.8		3.1
TOT OBS	234	104	187	129	654	4.2
TOT PCT	35.8	15.9	28.6	19.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.3	2.2	2.0	.4	.2	.2	.6	11.9	
NE	.6	.0	.0	.4	2.1	3.6	.5	.0	.3	.0	15.6	
E	.3	.0	.0	.5	.9	.0	.6	.2	.0	.0	3.0	
SE	.2	.0	.0	.3	1.2	1.0	.2	.0	.0	.0	2.0	
S	.7	.0	.4	1.3	1.2	2.8	1.3	.2	.0	.3	6.5	
SW	.6	.0	*	.4	3.5	3.4	.4	.3	.0	.5	7.5	
W	.2	.0	.0	.1	.2	.6	.2	.0	.1	.0	2.8	
NW	.0	.0	.0	.2	1.0	.6	.3	.0	*	*	3.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.2	.0	.0	.0	.2	.9	.2	.0	.2	.2	5.8	
TOT OBS	18	0	3	26	82	97	26	5	5	10	382	654
TOT PCT	2.8	.0	.5	4.0	12.5	14.8	4.0	.8	.8	1.5	58.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0
* OR >5000	2.3	2.8	2.8	2.8	2.8	2.8	2.8	2.8
* OR >3500	5.1	6.7	6.7	6.7	6.7	6.7	6.7	6.7
* OR >2000	15.2	20.9	21.0	21.0	21.0	21.0	21.0	21.0
* OR >1000	23.6	31.7	33.0	33.2	33.2	33.3	33.3	33.3
* OR >600	25.7	35.4	36.8	37.2	37.2	37.4	37.4	37.4
* OR >300	25.7	35.5	37.1	37.7	37.7	37.8	37.8	37.8
* OR >150	25.7	35.5	37.1	37.7	37.7	37.8	37.8	37.8
* OR > 0	25.9	36.4	38.7	39.3	39.6	40.1	40.4	40.6
TOTAL	179	251	267	271	273	277	279	280

TOTAL NUMBER OF OBS: 690 PCT FREQ NH <5/8: 59.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
20.7	11.4	12.1	8.9	5.5	5.3	8.5	10.2	15.0	2.5	729

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1873-1977

AREA 0032 CHRISTCHURCH
43.7S 173.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
<1/2	NO PCP	.1	.3	.2	.1	.1	.5	.1	*	.0	.3	1.7	
	TOT %	.1	.4	.2	.1	.1	.5	.1	*	.0	.3	1.8	
	PCP	.1	.1	.1	.0	.1	.2	.0	.0	.0	.0	.5	
1/2<1	NO PCP	.0	.4	.4	.2	.3	.5	.0	.0	.0	.1	1.9	
	TOT %	.1	.5	.4	.2	.4	.7	.0	.0	.0	.1	2.4	
	PCP	.0	*	.2	.0	.0	.0	.0	.0	.0	.1	.3	
1<2	NO PCP	.0	.0	.0	.1	.1	.2	.1	.0	.0	.0	.5	
	TOT %	.0	*	.2	.1	.1	.2	.1	.0	.0	.1	.8	
	PCP	.1	.1	.0	.1	.3	.3	.0	.0	.0	.0	1.0	
2<5	NO PCP	.0	.1	.2	.0	.3	.6	.2	.2	.0	.4	2.0	
	TOT %	.1	.2	.2	.1	.6	.9	.2	.2	.0	.4	3.0	
	PCP	.2	.4	.2	.2	.7	.7	.1	.1	.0	.0	2.6	
5<10	NO PCP	2.8	3.7	1.8	1.6	4.2	3.1	.9	.8	.0	1.4	20.2	
	TOT %	3.0	4.1	2.0	1.8	4.8	3.9	1.0	.9	.0	1.4	22.9	
	PCP	.0	.0	.2	.1	.2	.1	.0	.0	.0	.0	.5	
10+	NO PCP	14.2	15.5	3.3	3.3	9.1	9.9	3.3	5.3	.0	4.6	68.6	
	TOT %	14.2	15.5	3.4	3.4	9.2	10.1	3.3	5.3	.0	4.6	69.1	
	TOT OBS												945
	TOT PCT	17.4	20.7	6.5	5.8	15.2	16.2	4.7	6.3	.0	6.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.1	.2	.1	.0	.0	.3	.6	
<1/2	4-10	.0	.3	.2	.1	.0	.3	.0	.0	.0		.9	
	11-21	.1	.1	.0	.0	.0	.0	.0	*	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.4	.2	.1	.1	.5	.1	*	.0	.3	1.8	
	0-3	.0	.0	.2	.1	.2	.2	.0	.0	.0	.1	.7	
1/2<1	4-10	.0	.3	.2	.1	.0	.3	.0	.0	.0		.9	
	11-21	.1	.2	.0	.0	.2	.2	.0	.0	.0		.6	
	22+	.0	.0	.0	.0	.1	*	.0	.0	.0		.1	
	TOT %	.1	.5	.4	.2	.4	.7	.0	.0	.0	.1	2.4	
	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.2	
1<2	4-10	.0	*	.1	.0	.0	.0	.1	.1	.0		.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.1	.1	.0	.2	.0	.0	.0		.4	
	TOT %	.0	*	.2	.1	.1	.2	.1	.1	.0	.1	.9	
	0-3	.1	.0	.1	.0	.0	.0	.1	.1	.0	.5	.8	
2<5	4-10	.1	.2	.0	.0	.1	.1	.1	.1	.0		.7	
	11-21	.0	.1	.1	.1	.4	.4	.1	.0	.0		1.2	
	22+	.0	.0	.0	.0	.1	.4	.0	.1	.0		.6	
	TOT %	.2	.3	.2	.1	.6	1.0	.2	.3	.0	.5	3.4	
	0-3	.2	.3	.4	.0	.0	.2	.1	*	.0	1.3	2.6	
5<10	4-10	1.2	1.6	1.0	1.0	1.8	.8	.4	.7	.0		8.4	
	11-21	1.3	1.6	.4	.7	2.1	1.6	.4	.4	.0		8.5	
	22+	.4	.5	.2	.1	.9	1.3	.1	.1	.0		3.5	
	TOT %	3.1	4.0	2.1	1.8	4.8	3.9	1.0	1.2	.0	1.3	23.1	
	0-3	1.1	.9	.2	.1	.3	.1	.5	.2	.0	4.5	7.9	
10+	4-10	5.8	6.7	1.8	2.0	3.8	3.4	1.8	2.7	.0		28.0	
	11-21	6.0	7.2	1.2	1.1	3.6	4.3	.8	1.9	.0		26.1	
	22+	1.1	.6	.2	.3	1.5	2.2	.2	.5	.0		6.4	
	TOT %	14.1	15.4	3.4	3.5	9.2	10.0	3.3	5.2	.0	4.5	68.4	
	TOT OBS												963
	TOT PCT	17.5	20.6	6.4	5.8	15.1	16.2	4.7	6.9	.0	6.9	100.0	

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1873-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.6	.0	.5	3.2	13.4	16.1	2.7	1.1	2.2	.0	40.9	59.1	186
06&09	.5	.0	.5	3.1	12.2	17.9	4.6	.5	.0	3.1	42.3	57.7	196
12&15	4.7	.0	.0	5.2	10.4	9.0	3.3	.9	.5	2.4	36.3	63.7	212
18&21	4.3	.0	.9	4.3	12.1	13.8	5.2	.0	.0	.0	40.5	59.5	116
TOT	19	0	3	28	85	100	27	5	5	11	283	427	710
PCT	2.7	.0	.4	3.9	12.0	14.1	3.8	.7	.7	1.5	39.9	60.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	2.6	3.0	1.7	1.7	19.0	72.0	232
06&09	.8	1.6	.8	2.0	22.7	72.1	247
12&15	.9	1.7	.6	4.8	19.0	73.0	352
18&21	4.8	3.7	.5	3.7	31.0	56.1	187
TOT	20	24	9	33	225	707	1018
PCT	2.0	2.4	.9	3.2	22.1	69.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.6	2.7	7.7	35.2	57.1	182
06&09	.5	1.1	5.9	37.8	56.4	188
12&15	4.9	4.9	13.1	24.8	62.1	206
18&21	4.4	5.3	12.3	28.9	56.8	114
TOT	19	23	66	219	405	690
PCT	2.8	3.3	9.6	31.7	58.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.2	.0	.0	.0	.0	.0	1	.2
70/74	.2	.0	.0	.0	.2	.0	.0	.0	2	.4
65/69	.0	.0	.2	.6	.4	.2	.8	.2	12	2.4
60/64	.0	.6	.0	.4	1.8	4.5	4.7	4.1	79	16.0
55/59	.0	.6	1.2	.0	3.9	9.5	14.4	17.2	231	46.9
50/54	.0	.0	.8	1.0	4.1	6.1	9.3	9.1	150	30.4
45/49	.0	.0	.0	.2	.4	1.2	.8	1.0	18	3.7
TOTAL	1	4	12	11	53	106	148	156	493	100.0
PCT	.2	1.2	2.4	2.2	10.8	21.5	30.0	31.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.0	.0	.0	.0	.0	.0	.1	.0	.0
.0	.2	.2	.1	.0	.0	.0	.0	.0	.0
1.4	.1	.3	.2	.0	.0	.3	.4	.0	.0
5.7	3.6	.4	.1	1.0	1.0	1.2	2.9	.0	.2
9.6	13.4	4.4	1.7	5.3	6.2	2.1	2.0	.0	2.0
2.0	4.7	2.3	2.7	8.4	7.0	1.3	1.1	.0	.8
.0	.0	.0	.0	1.4	2.0	.3	.0	.0	.0
18.9	22.0	7.5	4.7	16.1	16.2	5.1	6.5	.0	3.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	79	69	65	58	51	48	45	57.6	257
06&09	75	68	64	56	50	43	38	56.4	273
12&15	77	65	64	55	49	46	44	55.5	277
18&21	68	65	61	54	49	45	42	54.6	199
TOT	79	68	64	55	49	46	38	56.0	1106

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.7	14.5	18.8	32.5	26.5	79	117
06&09	.9	1.7	11.2	26.7	36.2	23.3	82	116
12&15	.0	0.0	8.4	19.5	29.8	36.3	83	215
18&21	.0	0.3	11.4	16.5	24.1	41.8	83	79
TOT	1	29	57	108	169	169	82	527

APRIL

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1873-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
17/19	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
14/16	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.1	3	.0	.4
11/13	.0	.0	.0	.0	.0	.1	.1	.4	.1	.0	.1	7	.0	.9
9/10	.0	.0	.0	.0	.0	.3	.5	.4	.1	.0	.0	10	.1	1.1
7/8	.0	.0	.0	.0	.0	.1	1.8	.8	.1	.0	.0	22	.0	2.8
6	.0	.0	.0	.0	.1	.9	.4	.0	.0	.0	.0	11	.0	1.4
5	.0	.0	.0	.0	.4	1.4	1.7	.5	.0	.0	.0	31	.0	3.9
4	.0	.0	.0	.0	1.0	2.7	1.9	.3	.0	.0	.0	46	.0	5.9
3	.0	.0	.0	.3	1.7	2.7	1.4	.1	.0	.0	.0	48	.3	5.9
2	.0	.0	.0	.6	2.3	3.3	1.5	.0	.1	.0	.0	62	.4	7.5
1	.0	.0	.0	.6	3.6	3.9	1.1	.0	.0	.0	.0	73	1.0	8.3
0	.0	.0	.1	1.3	6.1	5.4	.5	.0	.0	.0	.0	105	1.1	12.2
-1	.0	.0	.0	1.5	4.8	3.1	.4	.0	.0	.0	.0	77	.6	9.2
-2	.0	.0	.1	1.7	5.1	2.3	.4	.0	.0	.0	.0	75	1.4	8.2
-3	.0	.0	.1	2.3	2.4	1.0	.1	.0	.0	.0	.0	47	.4	5.6
-4	.0	.0	.3	2.3	2.8	.9	.3	.0	.0	.0	.0	51	.5	6.0
-5	.0	.0	.0	3.1	2.4	.1	.1	.0	.0	.0	.0	45	.1	5.6
-6	.0	.0	.4	1.1	1.3	.0	.0	.0	.0	.0	.0	22	.0	2.8
-7/-8	.0	.0	1.0	1.8	1.0	.1	.0	.0	.0	.0	.0	31	.0	3.9
-9/-10	.0	.1	.4	.5	.3	.0	.0	.0	.0	.0	.0	10	.0	1.3
-11/-13	.0	.1	.3	.3	.1	.0	.0	.0	.0	.0	.0	6	.0	.8
-14/-16	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
-20/-22	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1		21		279		97		4		2		47	738
		2		136		224		19		0		785		
PCT	.1	.3	2.7	17.3	35.5	28.5	12.4	2.4	.5	.0	.3	100.0	6.0	94.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	1.0	.2	.0	.0	.0	2.0
1-2	.2	3.7	2.0	.0	.0	.0	5.9
3-4	.0	1.3	2.6	.0	.0	.0	3.9
5-6	.0	.5	1.7	.7	.0	.0	2.8
7	.0	.0	1.0	.4	.0	.0	1.4
8-9	.0	.0	.8	.2	.0	.0	1.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.2	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	6.5	8.3	1.5	.2	.0	17.6

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	2.5	.2	.0	.0	.0	3.3
1-2	.3	2.6	1.4	.0	.0	.0	4.4
3-4	.2	2.4	3.8	.2	.0	.0	6.5
5-6	.0	.8	2.4	.3	.0	.0	3.6
7	.0	.2	.9	.2	.0	.0	1.2
8-9	.0	.0	.5	*	.0	.0	.6
10-11	.0	.0	.3	.2	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	*	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	8.5	9.5	.8	.0	.0	20.1

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.1	.0	.0	.0	.0	1.5
1-2	.5	1.3	.3	.0	.0	.0	2.1
3-4	.0	.3	.9	.0	.0	.0	1.2
5-6	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.0	.2	.0	.0	.2
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.2	.0	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	2.7	1.7	.2	.2	.0	5.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.9	.0	.0	.0	.0	1.1
1-2	.0	1.7	.5	.0	.0	.0	2.3
3-4	.0	.5	1.1	.0	.0	.0	1.6
5-6	.0	.0	.2	*	.0	.0	.2
7	.0	.0	.0	.0	.2	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	*	.0	.0	.0	*
12	.0	.2	.0	.0	.0	.0	.2
13-16	.0	*	.2	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.4	2.0	*	.2	.0	5.7

PERIOD: (OVER-ALL) 1963-1977

APRIL

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.7	.6	.0	.0	.0	2.1
1-2	.2	2.2	.9	.0	.0	.0	3.2
3-4	.0	1.4	1.8	.1	.0	.0	3.3
5-6	.0	.4	1.9	.6	.3	.0	3.2
7	.0	.0	.6	.6	.0	.0	1.2
8-9	.0	.0	.3	.1	.1	.0	.6
10-11	.0	.2	.1	.4	.0	.0	.7
12	.0	.0	.0	.2	.1	.0	.3
13-16	.0	.1	.3	.1	.0	.1	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.9	5.9	2.1	.6	.1	15.2

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	*	.9	.5	.0	.0	.0	1.4
1-2	.2	1.7	.6	.0	.0	.0	2.5
3-4	.0	1.2	1.4	.2	.0	.0	2.8
5-6	.0	.5	2.3	.7	.1	.0	3.6
7	.0	.2	1.1	1.4	.0	.0	2.7
8-9	.0	.2	.6	1.0	.3	.0	2.0
10-11	.0	.0	.3	.7	.3	.0	1.3
12	.0	.0	.2	.3	*	.0	.5
13-16	.0	.0	.3	.2	.0	*	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.2	.0	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.7	7.3	4.5	.8	*	17.5

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.4	.0	.0	.0	.0	.8
1-2	.0	1.4	.1	.0	.0	.0	1.5
3-4	.0	.3	.0	.2	.0	.0	.4
5-6	.0	.3	.1	.1	.0	.0	.5
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.1	.1	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.4	.6	.3	.0	.0	3.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	1.0	.0	.0	.0	.0	1.3	
1-2	*	1.2	.7	.0	.0	.0	1.9	
3-4	.0	1.2	.8	.0	.0	.0	2.0	
5-6	.0	.2	.9	.3	.0	.0	1.3	
7	.0	.0	.1	.2	.0	.0	.3	
8-9	.0	.0	.2	*	.0	.0	.2	
10-11	.0	*	.0	.2	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	3.5	2.7	.7	.0	.0	7.3	92.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	11.9	9.8	.8	.0	.0	.0	22.5	
1-2	1.4	15.5	6.3	.0	.0	.0	23.2	
3-4	.2	8.3	12.2	.6	.0	.0	21.3	
5-6	.0	2.7	9.7	2.6	.5	.0	15.4	
7	.0	.3	3.9	2.7	.3	.0	7.2	
8-9	.0	.2	2.6	1.4	.5	.0	4.8	
10-11	.0	.3	.9	1.4	.3	.0	2.9	
12	.0	.2	.2	.5	.2	.0	.9	
13-16	.0	.2	.8	.5	.0	.2	1.8	
17-19	.0	.0	.0	.2	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.3	.2	.0	.5	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.4	37.4	37.3	10.0	1.8	.2	100.0	863

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.1	6.3	8.9	7.8	3.2	2.2	1.5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	232	5
6-7	.0	1.4	5.1	7.3	5.6	3.3	1.9	.4	1.1	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	196	6
8-9	.1	.8	1.6	2.1	2.5	1.4	3.4	.4	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	98	7
10-11	.0	1.4	.8	.5	.4	1.0	1.1	.1	.7	.1	.3	.1	.1	.1	.1	.0	.0	.0	.0	52	10
12-13	.0	.0	1.8	.8	.3	.3	1.0	.3	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	33	7
>13	.0	.0	.0	1.1	.3	.3	.0	.3	.0	.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	19	10
INDET	5.5	1.0	1.8	1.1	1.9	1.0	.4	.0	.3	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	97	4
TOTAL	49	79	146	151	103	66	68	14	26	8	7	6	1	1	1	1	0	0	0	729	6
PCT	6.7	10.8	20.0	20.7	14.1	9.3	9.3	1.9	3.6	1.1	1.0	.8	.1	.1	.1	.1	.0	.0	.0	100.0	

MAY

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1871-1977

AREA 0032 CHRISTCHURCH
43.7S 173.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	.8	.0	1.8	.0	.0	.0	.0	2.6	.0	.8	3.0	.0	.0		.0	93.6
NE	1.0	.3	2.1	.0	.0	.0	.0	3.3	1.7	1.4	5.5	.0	1.1		.0	87.0
E	5.2	2.9	4.0	.0	.0	.0	.0	11.0	9.2	.0	10.4	.0	2.3		.0	73.1
SE	2.4	3.1	5.9	.0	.0	.0	.0	11.4	1.4	.0	6.3	.0	1.6		.0	79.2
S	9.2	2.0	1.4	.0	.0	.0	.6	13.3	4.0	.0	.3	.0	.0		.4	82.0
SW	6.5	4.2	3.0	.0	.4	.0	1.7	15.8	6.4	.9	3.3	.0	1.6		.5	71.7
W	2.6	1.3	1.0	.0	.0	.0	.6	5.4	1.0	.6	3.2	.0	1.0		.0	89.5
NW	.3	.0	.5	.0	.0	.0	.0	.8	.0	1.3	5.2	.0	.0		.0	92.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	3.3	.0	.0	.0	.0	.0	.0	3.3	.0	.0	6.7	.0	.0		.0	90.0
TOT PCT	4.0	1.8	2.2	.0	.1	.0	.5	8.5	2.7	.7	4.2	.0	.8		.2	83.0
TOT OBS:	1177															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.3	1.3	1.3	.0	.0	.0	.3	6.3	2.0	.0	4.3	.0	.7		.3	86.5
06&09	5.6	2.3	3.9	.0	.0	.0	.7	12.5	2.3	.3	4.3	.0	1.0		.7	79.0
12&15	3.7	1.1	1.6	.0	.3	.0	.5	7.2	2.1	1.1	3.7	.0	1.1		.0	84.8
18&21	4.1	2.5	2.0	.0	.0	.0	.8	8.6	4.9	1.2	5.7	.0	.4		.0	79.5
TOT PCT	4.2	1.7	2.2	.0	.1	.0	.6	8.6	2.7	.7	4.4	.0	.8		.2	82.7
TOT OBS:	1227															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.7	7.4	5.9	1.0	.1	.0		14.5	11.1	13.5	9.0	12.5	15.2	17.4	20.8	11.9	15.6
NE	.8	7.0	6.5	.9	.1	.0		15.3	11.6	12.3	14.1	17.1	14.0	19.3	10.4	13.4	11.6
E	.6	4.7	1.4	.1	.0	.1		6.9	8.9	5.8	7.7	7.2	8.8	6.5	4.6	5.8	15.6
SE	.9	2.4	1.6	.3	.0	.0		5.1	9.8	6.6	10.3	5.2	2.1	4.3	7.7	4.7	2.7
S	.4	4.1	5.8	3.2	.8	.2		14.5	17.5	15.3	17.9	17.2	19.1	12.5	8.8	14.2	7.6
SW	.2	4.9	9.3	6.2	2.1	.3		23.0	19.8	23.8	17.3	25.6	19.1	21.5	18.8	26.4	20.1
W	.3	3.5	2.6	.6	.2	.0		7.2	12.2	10.0	7.7	5.4	3.1	6.3	9.2	8.0	6.7
NW	.6	3.8	3.4	.7	*	.0		8.6	11.1	8.5	5.8	5.9	11.6	9.1	11.9	7.2	14.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.9							4.9	.0	4.1	10.3	3.8	5.2	3.0	7.7	8.4	5.4
TOT OBS	123	498	473	169	43	8	1314		13.4	292	39	234	97	329	65	202	56
TOT PCT	9.4	37.9	36.0	12.9	3.3	.6		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.0	8.2	2.1	.2	.0		14.5	11.1	13.0	13.3	18.0	12.7
NE	3.3	8.9	2.9	.0	.1		15.3	11.6	12.5	16.8	17.8	13.0
E	2.4	4.2	.2	.0	.1		6.9	8.9	6.0	7.6	6.2	7.9
SE	2.2	2.0	.9	*	.0		5.1	9.8	7.0	4.3	4.8	4.3
S	2.0	5.4	4.9	1.6	.6		14.5	17.5	15.6	17.7	11.9	12.8
SW	1.9	8.1	7.9	4.0	1.1		23.0	19.8	23.0	23.7	21.1	25.0
W	1.9	3.8	1.1	.2	.2		7.2	12.2	9.7	4.8	6.8	7.8
NW	2.5	4.8	1.1	.2	.0		8.6	11.1	8.2	7.6	9.6	8.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.9						4.9	.0	4.8	4.2	3.8	7.8
TOT OBS	331	596	279	82	26	1314		13.4	331	331	394	258
TOT PCT	25.2	45.4	21.2	6.2	2.0		100.0		100.0	100.0	100.0	100.0

MAY

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1871-1977

AREA 0032 CHRISTCHURCH
43.7S 173.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.8	5.1	38.4	36.9	10.9	2.7	1.2	13.3	100.0	331
06&09	4.2	4.5	35.3	36.6	14.5	4.8	.0	13.7	100.0	331
12&15	3.8	4.3	39.1	38.6	11.2	3.0	.0	13.0	100.0	394
18&21	7.8	3.5	38.8	30.2	15.9	2.3	1.6	13.6	100.0	258
TOT	65	58	498	473	169	43	8	13.4		1314
PCT	4.9	4.4	37.9	36.0	12.9	3.3	.6		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	6.0	1.7	4.7	2.8		4.0
NE	3.7	1.9	4.8	3.8		5.0
E	1.4	.9	1.5	1.9		5.0
SE	.5	.5	1.4	3.9		6.7
S	1.6	2.7	5.9	5.4		5.8
SW	3.9	4.1	10.4	6.3		5.4
W	1.3	.6	2.9	1.0		4.9
NW	2.9	1.4	2.1	.4		3.4
VAR	.0	.0	.0	.0		.0
CALM	2.9	.9	1.0	1.2		3.3
TOT OBS	185	114	267	202	768	5.0
TOT PCT	24.1	14.8	34.8	26.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.6	1.3	2.1	.8	.3	.2	.1	9.4	
NE	.3	.0	.0	1.0	1.5	3.2	.7	.3	.0	.1	7.3	
E	.3	.0	.0	.4	1.3	.6	.3	.0	.0	.1	2.8	
SE	.3	.0	.5	1.6	.7	.8	.7	.0	.0	.1	1.5	
S	.6	.1	.1	2.3	2.7	3.9	.1	.1	.0	.1	5.5	
SW	1.1	*	.4	3.1	2.4	3.9	.9	.2	.3	.1	10.3	
W	.0	.0	.0	.3	1.4	.7	.4	.1	.0	.2	2.6	
NW	.0	.0	.0	.2	.2	1.1	.3	.0	.2	*	4.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.4	.0	.0	.4	.4	.4	.3	.1	.1	.0	3.9	
TOT OBS	22	1	8	77	91	144	34	8	6	7	370	768
TOT PCT	2.9	.1	1.0	10.0	11.8	18.8	4.4	1.0	.8	.9	48.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8
= OR >5000	2.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0
= OR >3500	6.3	7.4	7.4	7.4	7.4	7.4	7.4	7.4
= OR >2000	21.7	25.6	26.0	26.0	26.0	26.0	26.0	26.0
= OR >1000	31.0	37.2	37.7	37.7	37.7	37.7	37.7	37.7
= OR >400	36.0	46.6	47.3	47.6	47.6	47.6	47.6	47.6
= OR >300	36.5	47.6	48.4	48.6	48.6	48.6	48.7	48.7
= OR >150	36.5	47.6	48.5	48.7	48.7	48.7	48.9	48.9
= OR > 0	37.1	48.7	50.8	51.3	51.5	51.5	51.6	51.6
TOTAL	292	384	400	404	406	406	407	407

TOTAL NUMBER OF OBS: 788

PCT FREQ NH <5/8: 48.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
14.1	9.6	9.2	9.0	6.4	7.6	9.9	11.7	20.7	1.9	858

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1871-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.3	.6	.2	*	.2	.0	.3	.0	.1	1.7	
	TOT %	.0	.3	.6	.2	*	.3	.0	.3	.0	.1	1.8	
1/2<1	PCP	.1	.1	.0	.0	.0	.2	.0	.0	.0	.1	.4	
	NO PCP	*	.4	.2	.1	.0	.0	.1	.0	.0	.2	.9	
	TOT %	.1	.5	.2	.1	.0	.2	.1	.0	.0	.3	1.4	
1<2	PCP	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.3	
	NO PCP	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.2	
	TOT %	.0	.1	.0	.1	.1	.2	.0	.0	.0	.0	.4	
2<5	PCP	.0	.0	.0	*	.3	.4	.0	.0	.0	.1	.8	
	NO PCP	.1	.2	.0	.2	.3	.7	.0	.0	.0	.1	1.5	
	TOT %	.1	.2	.0	.2	.6	1.0	.0	.0	.0	.2	2.3	
5<10	PCP	.1	.2	.5	.5	1.1	2.4	.1	*	.0	.0	5.0	
	NO PCP	2.3	2.5	1.7	1.3	3.2	5.0	2.1	1.3	.0	.6	19.9	
	TOT %	2.4	2.7	2.2	1.7	4.4	7.3	2.2	1.3	.0	.6	24.9	
10+	PCP	.1	.2	.3	*	.4	.6	.2	*	.0	.0	2.0	
	NO PCP	11.2	11.5	4.1	3.1	9.2	13.6	4.1	6.6	.0	4.0	67.3	
	TOT %	11.4	11.7	4.4	3.1	9.6	14.1	4.4	6.6	.0	4.0	69.2	
	TOT OBS												1177
	TOT PCT	14.0	15.4	7.3	5.4	14.7	23.1	6.6	8.2	.0	5.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.2	
	4-10	.0	.1	.3	.2	*	.1	.0	.3	.0		1.1	
	11-21	.0	.2	.2	.0	.0	.2	.0	.0	.0		.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.3	.6	.2	*	.3	.0	.3	.0	.1	1.8	
1/2<1	0-3	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	.5	
	4-10	*	.4	.0	.0	.0	.0	.0	.0	.0		.4	
	11-21	.1	.2	.0	.0	.0	.1	.1	.0	.0		.4	
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0		.1	
	TOT %	.1	.5	.2	.1	.0	.2	.1	.0	.0	.3	1.4	
1<2	0-3	*	*	.0	.0	.1	.0	.0	.0	.0	.0	.2	
	4-10	.0	.1	*	*	.0	.1	.0	.0	.0		.3	
	11-21	.0	.1	.0	.1	.1	.1	.0	.0	.0		.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	*	.2	*	.1	.1	.2	.0	.0	.0	.0	.8	
2<5	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2	.3	
	4-10	.2	.2	*	.2	.0	.0	.0	.0	.0		.6	
	11-21	.0	.2	.0	*	.1	.3	.0	.0	.0		.7	
	22+	.0	.0	.0	.0	.4	.7	.0	.0	.0		1.1	
	TOT %	.2	.4	*	.2	.6	1.0	.0	.0	.0	.2	2.6	
5<10	0-3	.1	.1	.0	.5	.1	.1	*	.2	.0	.6	1.7	
	4-10	1.2	1.3	1.4	.7	.8	2.8	1.0	.6	.0		7.8	
	11-21	.8	1.1	.6	.4	1.7	2.2	.9	.4	.0		8.2	
	22+	.3	.1	.1	.1	1.8	4.1	.3	.2	.0		7.0	
	TOT %	2.4	2.7	2.1	1.7	4.4	7.3	2.2	1.3	.0	.6	24.7	
10+	0-3	.5	.5	.4	.4	.1	.1	.1	.3	.0	4.0	6.5	
	4-10	5.6	5.2	3.2	1.5	3.4	3.9	2.1	2.7	.0		27.6	
	11-21	4.4	4.9	.8	1.1	4.1	6.7	1.6	2.9	.0		26.5	
	22+	.7	.9	.1	.1	1.8	3.3	.4	.6	.0		8.1	
	TOT %	11.3	11.6	4.4	3.1	9.5	14.1	4.3	6.6	.0	4.0	68.7	
	TOT OBS												1187
	TOT PCT	14.0	15.6	7.4	5.4	14.7	23.0	6.6	8.2	.0	5.1	100.0	

MAY

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1871-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.2	.4	.4	7.5	12.4	23.7	2.9	1.2	.8	.8	51.5	48.5	241
06&09	3.2	.0	1.4	14.0	9.0	21.3	4.1	.9	.9	.9	55.7	44.3	221
12&15	3.2	.0	.9	7.7	11.8	13.1	4.5	1.8	.5	.5	43.9	56.1	221
18&21	3.6	.0	2.1	9.3	12.1	10.0	5.7	.7	.7	2.1	46.4	53.6	140
TOT	22	1	9	79	93	147	34	10	6	8	409	414	823
PCT	2.7	.1	1.1	9.6	11.3	17.9	4.1	1.2	.7	1.0	49.7	50.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	2.3	1.0	1.3	3.3	22.2	69.9	306
06&09	2.6	1.3	.3	2.9	28.3	64.5	307
12&15	.8	1.9	.5	1.6	21.4	73.8	378
18&21	2.8	1.6	.8	2.4	28.7	63.6	247
TOT	25	18	9	31	307	848	1238
PCT	2.0	1.5	.7	2.5	24.8	68.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.3	2.1	10.5	41.6	47.9	238
06&09	3.7	5.1	20.9	37.2	41.9	215
12&15	3.5	4.5	12.9	34.7	52.5	202
18&21	3.8	6.0	15.8	33.1	51.1	133
TOT	23	33	117	293	378	788
PCT	2.9	4.2	14.8	37.2	48.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.0	.0	.0	.0	.3	2	.3
60/64	.0	.0	.5	1.0	.7	.7	.9	.7	26	4.5
55/59	.0	.5	.7	.5	1.9	4.0	6.9	6.7	123	21.2
50/54	.0	.0	.7	1.0	3.8	10.3	17.2	14.1	274	47.2
45/49	.0	.0	.5	1.2	1.5	5.3	7.2	8.4	141	24.3
40/44	.0	.0	.0	.0	.2	.3	1.0	.3	11	1.9
35/39	.0	.0	.0	.0	.0	.0	.0	.5	3	.5
30/34	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
TOTAL	0	3	14	22	48	120	193	181	581	100.0
PCT	.0	.5	2.4	3.8	8.3	20.7	33.2	31.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.0	.0	.0	.2	.0	.0	.0	.0	.0
1.5	.3	.5	.0	.0	.2	1.0	.9	.0	.2
4.3	5.5	1.0	.3	2.0	1.1	1.8	4.3	.0	.9
8.8	8.5	2.8	3.1	6.0	8.4	3.0	2.5	.0	4.1
1.9	1.5	1.4	1.8	5.3	8.3	.7	2.1	.0	1.2
.1	.0	.0	.0	.5	1.0	.2	*	.0	.0
.0	.0	.0	.0	.0	.5	.0	.0	.0	.0
.1	.0	.0	.0	.0	.0	.0	*	.0	.0
16.9	15.8	5.7	5.2	14.0	19.5	6.6	9.9	.0	6.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	66	64	61	53	47	43	40	53.0	327
06&09	67	61	59	52	45	41	37	52.0	327
12&15	66	63	59	52	46	41	37	51.6	327
18&21	64	61	57	50	44	38	34	50.4	239
TOT	67	63	59	52	45	41	34	51.9	1310

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	7.6	9.2	19.8	41.2	22.1	81	131
06&09	.0	6.3	7.0	22.7	32.8	31.3	83	128
12&15	.0	5.1	10.3	20.5	29.9	34.2	83	234
18&21	.0	9.7	5.3	17.7	30.1	37.2	83	113
TOT	0	41	51	123	200	191	83	606

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1871-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.0	.3	.1	.2	.4	10	.0	1.0
9/10	.0	.0	.0	.0	.1	.1	.5	.1	8	.0	.8
7/8	.0	.0	.0	.1	.1	.6	.9	.0	13	.0	1.3
6	.0	.0	.0	.0	.3	.3	.1	.0	7	.0	.7
5	.0	.0	.0	.0	.4	1.3	.6	.0	23	.0	2.3
4	.0	.0	.0	.0	1.6	1.8	.1	.0	35	.0	3.5
3	.0	.0	.0	.1	2.1	1.3	.1	.0	36	.1	3.5
2	.0	.0	.1	1.0	3.9	1.7	.3	.0	70	.1	6.8
1	.0	.0	.0	1.2	3.6	1.3	.1	.0	62	.3	5.8
0	.0	.0	.5	5.5	5.9	.9	.1	.0	131	1.0	12.0
-1	.0	.0	.5	4.8	2.9	.4	.1	.0	87	.4	8.2
-2	.0	.0	1.4	6.4	3.0	.0	.0	.0	109	1.4	9.6
-3	.0	.0	2.0	4.3	2.0	.0	.0	.0	83	.8	7.4
-4	.0	.0	2.5	4.3	2.2	.0	.0	.0	90	.4	8.5
-5	.0	.1	2.6	4.6	1.4	.1	.0	.0	88	.2	8.5
-6	.0	.3	1.7	1.8	.3	.0	.0	.0	41	.3	3.8
-7/-8	.0	.4	2.2	2.5	.4	.0	.0	.0	55	.0	5.4
-9/-10	.1	.2	2.3	.7	.1	.0	.0	.0	34	.0	3.4
-11/-13	.1	.4	1.0	.0	.0	.0	.0	.0	15	.0	1.5
-14/-16	.2	.3	.4	.1	.0	.0	.0	.0	10	.0	1.0
-17/-19	.3	.0	.0	.0	.0	.0	.0	.0	3	.0	.3
TOTAL	7		172		307		27			50	960
		17		378		99		5	1010		
PCT	.7	1.7	17.0	37.2	30.4	9.8	2.7	.5	100.0	5.0	95.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.3	.0	.0	.0	.0	1.7
1-2	.2	3.5	.3	.0	.0	.0	4.1
3-4	.0	1.5	1.9	.1	.0	.0	3.5
5-6	.0	.4	2.3	.4	.0	.0	3.1
7	.0	.3	.9	.3	.0	.0	1.6
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	7.0	5.5	1.1	.0	.0	14.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	2.3	.3	.0	.0	.0	3.1
1-2	.2	3.0	1.0	.0	.0	.0	4.2
3-4	.0	2.0	1.8	.1	.0	.0	3.9
5-6	.0	.3	1.6	.4	.0	.0	2.2
7	.0	.0	1.1	.1	.1	.0	1.3
8-9	.0	.1	.6	.4	.0	.0	1.1
10-11	.0	.0	.3	.1	.0	.0	.4
12	.0	.1	.0	.1	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	7.9	6.6	1.3	.1	.0	16.6

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.2	.0	.0	.0	.0	1.6
1-2	.0	1.7	.4	.0	.0	.0	2.1
3-4	.0	.8	.2	.0	.0	.0	1.0
5-6	.0	.1	.2	.0	.0	.0	.3
7	.0	.1	.0	.1	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.8	.9	.1	.0	.0	5.2

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.8	.0	.0	.0	.0	1.7
1-2	.0	1.4	.1	.0	.0	.0	1.5
3-4	.0	.2	.8	*	.0	.0	1.0
5-6	.0	.2	.5	.2	.0	.0	.8
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.1	.0	.0	.0	.0	.1
10-11	.0	.0	.1	.0	.0	.0	.1
12	.0	.1	.0	.0	.0	.0	.1
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	2.8	1.8	.2	.0	.0	5.6

PERIOD: (OVER-ALL) 1963-1977

MAY

TABLE 18 (CONT)

AREA 0032 CHRISTCHURCH 43.7S 173.2E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.0	.1	.0	.0	.0	1.3	.1	1.0	.1	.0	.0	.0	1.3
1-2	.0	2.3	.5	.0	.0	.0	2.8	.0	2.3	1.3	.0	.0	.0	3.5
3-4	.0	1.3	1.5	.3	.0	.0	3.2	.0	1.3	2.6	.6	.0	.0	4.5
5-6	.0	.5	2.0	1.1	.1	.0	3.7	.0	.1	2.9	1.0	*	.0	4.0
7	.0	.2	1.1	.6	.0	.0	1.8	.0	.4	1.7	1.1	.1	.1	3.4
8-9	.0	.1	.7	.6	.0	.1	1.5	.0	.3	.7	.7	.3	*	1.9
10-11	.0	.0	.2	.4	.0	.0	.6	.0	.0	.4	1.1	.3	.0	1.8
12	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.9	.3	.0	1.2
13-16	.0	.0	.0	.4	.1	.0	.5	.0	.0	.8	.7	.8	.0	2.2
17-19	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.4	.0	.4
20-22	.0	.0	.0	.1	.1	.0	.2	.0	.0	.0	.2	.3	.0	.4
23-25	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.2	.0	.2
26-32	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.2	.1	.0	.3
33-40	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	*	*
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.4	6.1	3.5	.5	.2	16.0	.1	5.4	10.5	6.3	2.6	.2	25.2

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.0	.5	.0	.0	.0	.0	.5	*	1.0	.1	.0	.0	.0	1.1	
1-2	.0	1.5	.4	.0	.0	.0	1.9	.1	.9	.8	.0	.0	.0	1.8	
3-4	.1	.7	.8	.3	.0	.0	2.0	.0	.6	.9	.1	.0	.0	1.6	
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.3	.6	.3	.0	.0	1.1	
7	.0	.0	.6	.1	.0	.0	.7	.0	*	.3	.2	.0	.0	.5	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0	.0	.4	
10-11	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	
12	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.1	.0	.1	.0	.3	.0	.0	.4	.0	.0	.0	.4	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	2.8	2.3	.4	.1	.0	5.8	.2	2.7	3.2	1.0	.0	.0	7.0	95.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.1	9.3	.6	.0	.0	.0	17.1	
1-2	.6	16.4	4.7	.0	.0	.0	21.8	
3-4	.1	8.3	10.5	1.6	.0	.0	20.5	
5-6	.0	1.7	10.2	3.4	.1	.0	15.4	
7	.0	1.1	5.7	2.5	.2	.1	9.7	
8-9	.0	.6	2.1	2.1	.2	.1	5.2	
10-11	.0	.0	1.2	1.7	.2	.0	3.2	
12	.0	.4	.0	1.0	.2	.0	1.6	
13-16	.0	.0	1.4	1.1	1.0	.0	3.5	
17-19	.0	.0	.0	.0	.5	.0	.5	
20-22	.0	.0	.0	.2	.4	.0	.6	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.2	.1	.0	.4	
33-40	.0	.0	.0	.0	.0	.1	.1	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.8	38.0	36.5	13.9	3.4	.4	100.0	803

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.8	7.4	7.6	7.2	6.4	1.9	1.1	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	293	5
6-7	.0	.1	3.3	5.5	6.4	3.5	3.2	1.1	2.5	.0	.6	.4	.0	.0	.0	.0	.0	.0	.0	226	8
8-9	.0	.5	2.2	2.6	4.2	1.6	2.1	1.4	1.9	.2	.5	.2	.2	.1	.0	.0	.0	.0	.0	152	9
10-11	.0	1.4	.5	.8	.4	1.3	1.1	.1	.6	.5	.1	.1	.2	.0	.0	.1	.0	.0	.0	61	9
12-13	.0	.0	1.8	.8	.1	.4	.0	.0	.4	.0	.1	.1	.5	.0	.0	.0	.0	.0	.0	35	9
>13	.0	.0	.0	1.5	1.1	.1	.1	.1	.5	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	32	9
INDET	4.0	.2	.5	1.1	.6	.2	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	38	3
TOTAL	49	82	135	167	164	77	64	28	52	8	12	7	9	2	0	1	0	0	0	857	7
PCT	5.7	9.6	15.8	19.5	19.1	9.0	7.5	3.3	6.1	.9	1.4	.8	1.1	.2	.0	.1	.0	.0	.0	100.0	

JUNE

PERIOD: (PRIMARY) 1961-1977
(OVER-ALL) 1875-1977

AREA 0032 CHRISTCHURCH
43.4S 173.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	.7	.0	.0	.0	.0	.0	.0	.7	.7	.0	3.1	.0	.0		.0	95.5
NE	4.4	1.2	.3	.0	.0	.0	.0	5.9	2.9	.0	9.7	1.2	.0		.0	80.2
E	24.4	.0	8.9	.0	.0	.0	.0	33.3	5.7	.0	8.1	.0	.0		.0	52.8
SE	15.5	6.9	10.3	.0	.0	.0	.0	32.8	.9	.0	6.9	.0	.0		.0	59.5
S	13.1	2.5	3.5	.0	.0	.0	.0	19.1	5.5	.0	2.8	.0	.0		.0	72.6
SW	10.0	5.4	5.4	.0	.0	.0	.0	20.1	4.8	.3	3.5	.0	.0		.0	71.3
W	3.6	.0	.0	.0	.0	.0	.0	3.6	6.3	4.5	3.6	.0	.0		.0	82.0
NW	2.6	1.3	1.3	.0	.0	.0	.0	5.2	.0	7.8	2.3	.0	.0		.0	84.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	100.0
TOT PCT	7.4	2.3	2.8	.0	.0	.0	.0	12.4	3.3	1.3	4.1	.1	.0		.0	78.8
TOT OBS:	704															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	8.3	1.1	2.2	.0	.0	.0	.0	11.7	4.4	.6	3.3	.0	.0		.0	80.0
06609	5.9	2.7	2.7	.0	.0	.0	.0	10.8	3.2	.5	3.8	.0	.0		.0	81.6
12615	6.3	2.0	3.2	.0	.0	.0	.0	11.5	4.0	2.4	2.8	.4	.0		.0	79.0
18621	9.0	3.3	2.5	.0	.0	.0	.0	14.8	.8	1.6	7.4	.0	.0		.0	75.4
TOT PCT	7.2	2.2	2.7	.0	.0	.0	.0	11.9	3.4	1.4	3.9	.1	.0		.0	79.3
TOT OBS:	739															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.3	5.5	6.0	2.1	.4	.0		15.4	13.5	13.5	17.0	14.3	18.1	15.2	16.9	18.3	8.3
NE	1.2	5.0	4.1	1.6	.3	.0		12.3	12.5	7.5	15.2	14.1	9.7	16.7	10.7	9.8	17.5
E	.8	2.0	1.2	.3	.3	.0		4.6	11.3	4.9	1.8	7.9	5.9	2.9	.0	6.0	6.7
SE	.4	1.7	1.6	.7	.1	.0		4.4	12.6	4.2	6.3	6.4	1.3	4.4	7.4	3.6	.0
S	1.2	4.5	6.8	2.9	.6	.1		16.1	13.4	19.0	22.3	15.2	12.8	18.2	5.8	15.2	19.2
SW	1.3	3.9	11.2	5.6	1.2	.0		23.2	17.5	26.3	17.0	20.5	23.4	19.0	28.7	26.0	24.8
W	.9	4.4	2.5	.8	.0	.0		8.5	10.9	11.3	12.5	4.1	6.9	7.2	11.8	8.3	12.9
NW	.8	5.4	4.1	.3	*	.1		10.8	10.9	10.5	.9	9.0	13.1	12.9	11.8	10.0	7.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.8							4.8	.0	2.5	7.1	8.5	8.8	3.5	7.4	2.9	.0
TOT OBS	100	255	295	111	23	2	786		13.3	159	28	117	80	199	68	103	30
TOT PCT	12.7	32.4	37.5	14.1	2.9	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)				
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21	
N	4.2	6.6	3.5	.9	.2		15.4	13.5	14.0	15.9	15.6	16.1	
NE	3.4	5.7	2.7	.4	.1		12.3	12.5	8.7	12.3	15.2	11.5	
E	1.9	1.7	.5	.4	.1		4.6	11.3	4.4	7.1	2.2	6.1	
SE	.9	2.4	1.0	.1	.0		4.4	12.6	4.5	4.3	5.1	2.8	
S	2.4	6.7	5.2	1.6	.1		16.1	15.4	19.5	14.2	15.0	16.1	
SW	2.9	7.6	9.6	2.9	.1		23.2	17.5	24.9	21.7	21.4	26.5	
W	3.3	3.3	1.5	.4	.0		8.5	10.9	11.6	5.2	8.3	9.3	
NW	3.8	4.9	1.9	.1	.1		10.8	10.9	9.1	10.7	12.6	9.4	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	4.8						4.8	.0	3.2	8.6	4.5	2.2	
TOT OBS	218	305	203	54	6	786		13.3	187	197	267	135	
TOT PCT	27.7	38.8	25.8	6.9	.8		100.0		100.0	100.0	100.0	100.0	

JUNE

PERIOD: (PRIMARY) 1961-1977
(OVER-ALL) 1875-1977

AREA 0032 CHRISTCHURCH
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.2	8.6	34.8	35.3	16.6	1.6	.0	13.3	100.0	187
06&09	8.6	8.1	31.0	39.1	7.1	5.6	.5	12.5	100.0	197
12&15	4.5	9.4	30.7	36.0	16.1	3.0	.4	13.5	100.0	267
18&21	2.2	3.7	34.8	41.5	17.0	.7	.0	13.9	100.0	135
TOT	38	62	255	295	111	23	2	13.3		786
PCT	4.8	7.9	32.4	37.5	14.1	2.9	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	6.9	3.2	4.7	1.0		3.7
NE	4.9	1.3	3.5	2.7		4.2
E	1.3	.2	1.4	2.7		5.9
SE	.7	.7	1.9	.6		5.2
S	2.6	2.1	6.1	4.4		5.4
SW	4.9	1.9	8.2	8.8		9.5
W	2.3	1.8	.4	3.7		4.7
NW	3.7	1.6	2.0	2.4		4.2
VAR	.0	.0	.0	.0		.0
CALM	3.3	.8	.8	.4		2.6
TOT OBS	148	65	140	131	484	4.7
TOT PCT	30.6	13.4	28.9	27.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.4	1.7	2.8	.0	.0	.0	.0	11.8	
NE	.2	.0	.4	.8	1.4	2.3	.2	.0	.0	.0	7.2	
E	.2	.0	1.1	.9	1.2	.4	.0	.0	.0	.0	1.8	
SE	.2	.0	.0	.1	.6	1.6	.0	.0	.0	.0	1.4	
S	.6	.0	.0	1.9	2.7	4.5	.0	.2	.0	.0	9.2	
SW	1.0	.2	.3	3.9	4.7	5.2	.6	.0	.0	.0	8.5	
W	.2	.0	.2	1.0	.7	.9	.2	.0	.0	.0	4.4	
NW	.2	.0	.2	.4	1.1	1.5	.2	.0	.0	.2	5.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.8	.0	.0	.0	.0	4.3	
TOT OBS	13	1	10	42	69	97	6	1	0	1	244	484
TOT PCT	2.7	.2	2.1	8.7	14.3	20.0	1.2	.2	.0	.2	50.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.4	.4	.4	.4	.4	.4	.4	.4
= OR >5000	.6	.6	.6	.6	.6	.6	.6	.6
= OR >3500	1.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6
= OR >2000	17.1	21.1	21.5	21.5	21.5	21.5	21.5	21.5
= OR >1000	25.7	34.7	36.3	36.3	36.3	36.3	36.5	36.5
= OR >600	30.3	42.4	45.2	45.2	45.4	45.4	45.6	45.6
= OR >300	31.1	43.4	46.8	47.0	47.2	47.2	47.4	47.4
= OR >150	31.1	43.4	46.8	47.2	47.4	47.4	47.6	47.6
= OR > 0	31.7	44.4	49.2	49.6	50.2	50.2	50.4	50.4
TOTAL	159	223	247	249	252	252	253	253

TOTAL NUMBER OF OBS: 502 PCT FREQ NH <5/8: 49.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
19.6	11.0	10.8	8.4	4.4	5.2	10.3	10.1	24.4	1.9	574

PERIOD: (PRIMARY) 1961-1977
(OVER-ALL) 1875-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.1	
	NO PCP	.1	.4	.1	.0	.0	.3	.1	.1	.0	.0	1.0	
	TOT %	.1	.4	.1	.0	.1	.3	.1	.1	.0	.0	1.1	
1/2<1	PCP	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	.3	
	NO PCP	.2	.9	.1	.1	.0	.3	.0	.1	.0	.0	1.8	
	TOT %	.2	.9	.2	.4	.0	.3	.0	.1	.0	.0	2.1	
1<2	PCP	.0	*	.1	.0	.1	.0	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.3	
	TOT %	.0	*	.2	.0	.1	.1	.0	.0	.0	.0	.6	
2<5	PCP	.0	.0	.1	.3	.8	.7	.3	.0	.0	.0	2.3	
	NO PCP	.1	.0	.0	.1	.6	.5	.1	*	.0	.0	1.6	
	TOT %	.1	.0	.1	.5	1.5	1.2	.4	*	.0	.0	3.8	
5<10	PCP	.0	.5	.9	.8	1.0	3.1	.0	.3	.0	.0	6.5	
	NO PCP	1.3	1.3	.6	.7	3.9	5.4	1.0	1.7	.0	.4	16.5	
	TOT %	1.3	1.8	1.5	1.5	4.9	8.6	1.0	2.0	.0	.4	23.0	
10+	PCP	.1	.2	.2	.0	.9	1.1	.0	.3	.0	.0	2.8	
	NO PCP	14.1	8.7	2.0	1.8	7.9	12.9	6.3	8.4	.0	4.4	66.5	
	TOT %	14.2	8.9	2.2	1.8	8.8	14.0	6.3	8.7	.0	4.4	69.3	
	TOT OBS												704
	TOT PCT	15.9	12.0	4.4	4.1	15.4	24.5	7.9	10.9	.0	4.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.1	.1	.1	.0	.0	.3	.0	.1	.0	.0	.6	
	4-10	.0	.3	.0	.0	.0	.0	.1	.0	.0		.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.1	*	.0	.0	.0		.1	
	TOT %	.1	.4	.1	.0	.1	.3	.1	.1	.0	.0	1.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	4-10	.1	.2	.1	.3	.1	.1	.0	.0	.0		.8	
	11-21	.0	.0	.0	.0	.0	.3	.0	.0	.0		.3	
	22+	.1	.7	.1	.1	.0	.0	.0	.0	.0		1.0	
	TOT %	.2	.9	.2	.4	.1	.4	.0	.1	.0	.0	2.3	
1<2	0-3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.1	.1	.1	.0		.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	*	.1	.0	.1	.0	.0	.0	.0		.3	
	TOT %	.0	*	.2	.0	.1	.1	.1	.1	.0	.0	.7	
2<5	0-3	.0	.0	.1	.0	.0	.1	.1	.1	.0	.0	.4	
	4-10	.0	.1	.0	.1	.3	.0	.1	.0	.0		.7	
	11-21	.0	.0	.0	.2	.6	.8	.2	.0	.0		1.8	
	22+	.1	.0	.0	.1	.7	.3	.0	*	.0		1.3	
	TOT %	.1	.1	.1	.5	1.6	1.2	.5	.1	.0	.0	4.2	
5<10	0-3	.0	.4	.3	.1	.2	.1	.3	.3	.0	.4	2.1	
	4-10	.2	.4	.2	.6	.9	.8	.5	.8	.0		4.5	
	11-21	.8	.7	.5	.5	2.6	3.7	.2	.8	.0		10.0	
	22+	.4	.2	.4	.3	1.1	3.8	.0	.0	.0		6.2	
	TOT %	1.3	1.8	1.4	1.5	4.8	8.5	1.0	2.0	.0	.4	22.8	
10+	0-3	1.2	.7	.3	.1	.8	.8	.4	.2	.0	4.4	9.0	
	4-10	5.7	3.6	1.5	.5	2.8	3.1	3.8	4.7	.0		25.5	
	11-21	5.3	3.6	.5	1.1	3.5	6.9	1.9	3.3	.0		26.1	
	22+	1.8	.9	.0	*	1.6	3.0	.4	.4	.0		8.2	
	TOT %	14.1	8.9	2.2	1.8	8.8	13.9	6.3	8.6	.0	4.4	68.8	
	TOT OBS												709
	TOT PCT	15.8	12.1	4.3	4.1	15.5	24.4	8.0	11.0	.0	4.8	100.0	

JUNE

PERIOD: (PRIMARY) 1961-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	3.1	.0	.6	10.5	16.0	19.6	2.5	.6	.6	.6	54.3	45.7	162
06&09	1.4	.0	3.5	9.8	7.7	27.3	1.4	.0	.0	.0	51.0	49.0	143
12&15	2.1	.0	2.8	5.0	14.9	14.9	.7	.0	.0	.0	40.4	59.6	141
18&21	4.7	1.2	.0	9.3	19.8	9.3	.0	.0	.0	.0	44.2	55.8	86
TOT	14	1	10	46	75	100	7	1	1	1	256	276	532
PCT	2.6	.2	1.9	8.6	14.1	18.8	1.3	.2	.2	.2	48.1	51.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.1	2.8	.0	6.6	24.3	65.2	181
06&09	1.1	1.6	1.1	3.8	17.7	74.7	186
12&15	.0	2.0	.4	3.6	21.7	72.3	253
18&21	3.2	2.4	1.6	3.2	30.6	58.9	124
TOT	8	16	5	32	170	513	744
PCT	1.1	2.2	.7	4.3	22.8	69.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	3.2	4.5	17.2	37.6	45.2	157
06&09	1.5	5.1	16.8	35.8	47.4	137
12&15	2.4	5.5	11.8	33.1	55.1	127
18&21	4.9	6.2	17.3	29.6	53.1	81
TOT	14	26	79	174	249	502
PCT	2.8	5.2	15.7	34.7	49.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.5	.0	.5	.3	.0	.0	.3	5	1.3
55/59	.5	.0	.3	.5	.8	2.5	5.1	3.3	51	12.9
50/54	.0	.3	.3	.5	4.0	7.6	11.4	13.9	150	37.9
45/49	.0	.0	.3	1.3	3.5	7.1	15.4	15.4	170	42.9
40/44	.0	.0	.0	.0	.8	.8	.8	2.3	18	4.5
35/39	.0	.0	.0	.0	.0	.3	.0	.3	2	.5
TOTAL	2	3	3	10	37	72	129	140	396	100.0
PCT	.5	.8	.8	2.5	9.3	18.2	32.6	35.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.5	.0	.0	.0	.0	.3	.3	.3	.0	.0
4.2	1.6	1.1	.1	.0	1.1	1.9	2.0	.0	.8
7.9	7.4	3.2	.7	4.4	4.9	2.7	4.7	.0	2.0
4.4	4.8	1.4	2.0	7.4	14.1	5.1	2.9	.0	1.0
.2	.1	.3	1.0	1.7	1.1	.0	.0	.0	.3
.2	.0	.0	.0	.0	.3	.0	.1	.0	.0
17.4	14.0	5.9	3.7	13.5	21.7	9.8	10.0	.0	4.0

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	71	64	57	50	45	32	30	50.1	197
06&09	61	59	56	50	45	43	42	50.2	192
12&15	61	59	55	50	45	39	30	49.6	285
18&21	63	62	57	48	41	37	36	49.4	134
TOT	71	61	56	50	45	38	30	49.9	788

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	4.3	14.1	21.7	41.3	18.5	80	92
06&09	.0	4.7	5.9	15.3	36.5	37.6	85	85
12&15	.0	2.9	8.8	15.3	26.5	46.5	86	170
18&21	2.9	4.4	7.4	23.5	32.4	29.4	81	68
TOT	2	16	38	75	136	148	84	415

PERIOD: (PRIMARY) 1961-1977
(OVER-ALL) 1875-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	29 32	33 36	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
14/14	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
9/10	.0	.0	.0	.0	.0	.0	.2	.0	.2	.0	.0	2	.0	.4
7/8	.0	.0	.0	.0	.0	.2	.2	.6	.4	.0	.0	7	.0	1.3
6	.0	.0	.0	.0	.0	.0	.2	.9	.0	.0	.0	6	.0	1.1
5	.0	.0	.0	.0	.0	.4	1.5	.6	.4	.0	.0	15	.0	2.8
4	.0	.0	.0	.0	.2	.0	1.7	.6	.2	.0	.0	14	.0	2.6
3	.0	.0	.0	.0	.0	.7	3.7	.7	.0	.0	.0	28	.7	4.4
2	.0	.0	.0	.0	.2	2.6	3.3	.4	.2	.0	.0	36	.4	6.2
1	.0	.0	.0	.0	.0	4.6	2.6	.6	.0	.0	.0	42	.2	7.5
0	.0	.0	.0	.0	.7	5.9	1.7	.2	.0	.0	.0	46	.4	8.1
-1	.0	.0	.0	.0	1.3	5.1	2.6	.0	.0	.0	.0	49	.7	8.3
-2	.0	.0	.0	.0	4.0	5.5	1.1	.0	.0	.0	.0	58	.9	9.7
-3	.0	.0	.0	.2	3.7	2.8	1.5	.0	.0	.0	.0	44	.4	7.7
-4	.0	.0	.0	.0	4.4	2.4	.2	.2	.0	.0	.0	39	.6	6.6
-5	.0	.0	.0	.2	7.5	2.0	.6	.2	.0	.0	.0	57	.2	10.3
-6	.0	.0	.0	.9	3.1	1.5	.0	.0	.0	.0	.0	30	.2	5.3
-7/-8	.0	.0	.2	.7	3.9	1.1	.0	.0	.0	.0	.0	32	.0	5.9
-9/-10	.0	.0	.2	.7	3.3	.6	.0	.0	.0	.0	.0	26	.0	4.8
-11/-13	.0	.0	.4	.6	.9	.0	.0	.0	.0	.0	.0	10	.0	1.8
-14/-16	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.2
-20/-22	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	1	1	4	18	181	192	113	26	8	0	1	545	25	520
PCT	.2	.2	.7	3.3	33.2	35.2	20.7	4.8	1.5	.0	.2	100.0	4.6	95.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	1.1	.0	.0	.0	.0	2.2
1-2	.0	2.6	1.4	.0	.0	.0	4.1
3-4	.0	1.5	2.4	.4	.0	.0	4.3
5-6	.0	.6	1.5	.7	.3	.0	3.1
7	.0	.0	1.2	.3	.3	.0	1.9
8-9	.0	.2	.3	.3	.0	.0	.8
0-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.1	.0	.0	.0	.1
3-16	.0	.0	.0	.0	.0	.0	.0
7-19	.0	.0	.0	.0	.0	.0	.0
0-22	.0	.0	.2	.0	.0	.0	.2
3-25	.0	.0	.0	.0	.0	.0	.0
6-32	.0	.0	.0	.0	.0	.0	.0
3-40	.0	.0	.0	.0	.0	.0	.0
1-48	.0	.0	.0	.0	.0	.0	.0
9-60	.0	.0	.0	.0	.0	.0	.0
1-70	.0	.0	.0	.0	.0	.0	.0
1-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	6.0	7.2	2.0	.7	.0	17.0

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.3	.0	.0	.0	.0	1.8
1-2	.6	1.5	1.5	.0	.0	.0	3.6
3-4	.0	.6	1.6	.3	.0	.0	2.6
5-6	.0	.8	1.1	.2	*	.0	2.2
7	.0	.0	.5	.4	.0	.0	.9
8-9	.0	.0	.2	.2	.2	.0	.6
0-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	*	.2	.0	.0	.2
3-16	.0	.0	.0	.0	.2	.0	.2
7-19	.0	.0	.0	.0	.0	.0	.0
0-22	.0	.0	.0	.0	.0	.0	.0
3-25	.0	.0	.0	.0	.0	.0	.0
6-32	.0	.0	.0	.0	.0	.0	.0
3-40	.0	.0	.0	.0	.0	.0	.0
1-48	.0	.0	.0	.0	.0	.0	.0
9-60	.0	.0	.0	.0	.0	.0	.0
1-70	.0	.0	.0	.0	.0	.0	.0
1-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	4.3	5.0	1.3	.5	.0	12.1

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.4	.0	.0	.0	.0	.8
1-2	.2	1.8	.0	.0	.0	.0	2.0
3-4	.0	.0	.7	.0	.0	.0	.7
5-6	.0	.1	.1	.2	.0	.0	.5
7	.0	.2	.0	.2	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.5	.8	.4	.3	.0	4.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	.1	.1	.0	.0	.0	.2
3-4	.0	.2	.9	.0	.0	.0	1.1
5-6	.0	.2	.9	.0	.0	.0	1.1
7	.0	.0	.4	.1	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	2.3	.1	.0	.0	3.5

PERIOD: (OVER-ALL) 1963-1977

JUNE

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	.8	.0	.0	.0	.0	1.5
1-2	.2	2.3	.9	.0	.0	.0	3.3
3-4	.0	1.1	2.5	.3	.0	.0	3.9
5-6	.0	.2	2.4	.5	.1	.0	3.2
7	.0	.4	.9	1.1	.0	.0	2.4
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.2	.5	.4	.2	.2	1.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.2	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	4.9	7.4	2.9	.5	.2	16.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.4	.0	.0	.0	1.4
1-2	.0	1.8	1.1	.0	.0	.0	2.9
3-4	.0	1.6	3.4	.4	.0	.0	5.5
5-6	.2	.0	3.2	1.3	.4	.0	5.1
7	.0	.0	1.8	1.3	.0	.0	3.1
8-9	.0	.0	.3	1.3	.0	.0	1.6
10-11	.0	.0	.3	.3	.4	.0	1.0
12	.0	.0	.2	.0	.2	.0	.4
13-16	.0	.0	.2	1.2	.2	.0	1.6
17-19	.0	.0	.0	.4	.0	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.4	10.9	6.3	1.2	.0	23.0

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.1	.0	.0	.0	.0	1.5
1-2	.2	1.8	.5	.0	.0	.0	2.5
3-4	.0	.9	.7	.0	.0	.0	1.6
5-6	.0	.0	.5	.2	.0	.0	.7
7	.0	.0	.4	.4	.0	.0	.8
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.2	.1	.0	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.0	2.3	.6	.0	.0	7.5

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.0	.0	.0	.0	.0	1.0	
1-2	.2	2.9	1.4	.0	.0	.0	4.5	
3-4	.0	1.2	2.3	*	.0	.0	3.5	
5-6	.0	.2	1.2	.0	.0	.0	1.3	
7	.0	.0	.2	*	*	.0	.3	
8-9	.0	.0	*	*	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.2	.0	.2	.4	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.2	.0	.0	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	5.5	5.1	.3	*	.2	11.4	96.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.0	7.2	.4	.0	.0	.0	15.6	
1-2	1.5	15.0	6.8	.0	.0	.0	23.3	
3-4	.0	7.0	14.2	1.5	.0	.0	22.8	
5-6	.2	2.1	10.6	3.0	.9	.0	16.9	
7	.0	.6	5.3	3.6	.6	.0	10.1	
8-9	.0	.2	1.3	1.9	.2	.0	3.6	
10-11	.0	.2	.8	.9	.6	.2	2.7	
12	.0	.2	.6	.6	.2	.2	1.7	
13-16	.0	.0	.2	1.5	.8	.0	2.5	
17-19	.0	.2	.0	.4	.0	.0	.6	
20-22	.0	.0	.2	.2	.0	.0	.4	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.7	32.6	40.4	13.7	3.2	.4	100.0	527

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.9	5.2	11.2	8.0	2.4	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	165	4
6-7	.0	.7	5.4	8.3	8.1	3.4	3.1	1.4	1.6	.2	.2	.0	.0	.2	.0	.0	.0	.0	.0	181	7
8-9	.0	.2	1.4	2.4	4.5	2.4	1.4	1.6	1.4	1.1	.4	.2	.0	.0	.0	.0	.0	.0	.0	94	9
10-11	.0	2.5	.7	.5	1.8	.9	.7	.5	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	47	7
12-13	.0	.0	1.3	.5	.0	.2	.2	.0	.0	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	15	7
>13	.0	.0	.0	.9	.4	.0	.2	.0	.4	.2	.2	.0	.0	.2	.0	.0	.0	.0	.0	13	12
INDEF	2.9	.4	1.3	1.1	.4	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	38	3
TOTAL	21	90	118	120	97	47	39	20	21	10	5	3	0	2	0	0	0	0	0	553	6
PCT	3.8	9.0	21.3	21.7	17.5	8.5	7.1	3.6	3.8	1.8	.9	.5	.0	.4	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1957-1977
(OVER-ALL) 1873-1977

AREA 0032 CHRISTCHURCH
43.5S 173.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	3.9	2.3	3.2	.0	.0	.0	.0	8.7	1.9	2.7	.9	.0	.0	.0	.0	85.8
NE	6.0	1.1	1.4	.0	.0	.0	.0	8.3	1.1	.0	2.1	.0	1.8	.0	.0	86.7
E	15.6	9.2	6.9	.0	.0	.0	.0	31.8	1.7	.0	6.4	.0	.0	.0	.0	60.1
SE	3.8	.0	15.3	.0	.0	.0	.0	19.1	.8	.0	4.6	.0	.0	.0	.0	75.6
S	15.2	5.0	2.9	.0	.0	.0	.5	23.6	1.8	.0	3.1	.0	.8	.0	.0	70.7
SW	11.4	3.6	5.2	.0	.0	.0	.8	20.9	2.4	.0	.4	.0	1.2	.0	.0	75.1
W	3.7	1.1	3.2	.0	.0	.0	.0	7.9	5.3	.0	1.6	.0	.0	.0	.0	85.2
NW	4.5	.5	.0	.0	.0	.0	.0	5.0	.0	.0	.0	.0	1.8	.0	.0	93.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	.0	.0	97.6
TOT PCT	8.2	2.8	3.7	.0	.0	.0	.3	14.8	1.8	.4	1.7	.1	.8	.0	.0	80.3
TOT OBS:	722															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE									OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	9.1	2.7	4.8	.0	.0	.0	.0	16.6	.5	.0	2.1	.0	.5	.0	.0	80.2
06&09	8.5	1.5	2.5	.0	.0	.0	.5	12.4	1.0	.5	1.0	.0	1.0	.0	.0	84.1
12&15	6.3	2.5	3.8	.0	.0	.0	.4	13.0	4.2	.4	2.1	.0	1.3	.0	.0	79.0
18&21	10.1	5.0	4.2	.0	.0	.0	.0	19.3	.0	.8	.8	.8	.8	.0	.0	77.3
TOT PCT	8.2	2.7	3.8	.0	.0	.0	.3	14.8	1.7	.4	1.6	.1	.9	.0	.0	80.4
TOT OBS:	745															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.6	6.5	6.3	1.2	.2	.1		16.9	12.9	13.2	9.8	12.5	12.3	16.9	16.4	18.3	16.7
NE	.8	6.7	6.9	.8	.0	*		15.3	11.6	16.9	14.3	18.0	21.6	13.4	7.0	14.7	2.8
E	.5	2.1	2.4	.4	.8	.0		6.6	15.4	7.5	10.7	8.8	2.7	5.5	6.3	5.6	10.2
SE	.1	2.7	1.7	*	.0	.0		4.5	9.5	2.3	8.0	4.0	4.1	5.4	3.1	5.4	7.4
S	.7	4.6	5.8	1.4	.8	.2		13.6	15.3	12.0	28.6	13.2	15.1	12.1	17.2	14.0	14.8
SW	.5	6.5	11.2	4.4	2.3	.4		25.3	18.3	28.9	17.0	24.3	26.7	24.9	23.4	21.6	33.3
W	.4	2.7	2.8	.5	.1	.0		6.6	12.9	7.7	3.6	5.6	4.8	8.4	12.5	3.9	.9
NW	.3	4.6	2.4	.7	*	.0		8.0	11.0	9.4	8.0	7.9	5.8	5.2	10.9	10.3	14.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.2							5.2	.0	1.6	.0	5.6	6.8	8.3	3.1	6.0	.9
TOT OBS	76	303	332	78	37	6	832		13.6	186	28	142	73	228	32	116	27
TOT PCT	9.1	36.4	39.9	9.4	4.4	.7		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.1	8.2	2.9	.7	.1		14.9	12.9	12.7	12.4	16.8	18.2
NE	2.9	9.8	2.5	.1	*		15.3	11.6	16.6	19.2	12.6	12.4
E	1.4	3.7	.7	.0	.8		6.6	15.4	7.9	6.7	5.6	6.5
SE	1.7	2.3	.5	.0	.0		4.5	9.5	3.5	4.1	5.1	5.8
S	2.3	6.4	3.6	.9	.4		13.6	15.3	14.1	13.8	12.7	14.2
SW	2.2	11.4	7.2	3.1	1.4		25.3	18.3	27.3	25.1	24.7	23.8
W	1.1	3.5	1.7	.2	.0		6.6	12.9	7.1	5.3	8.9	3.1
NW	2.9	3.3	1.6	.2	.0		8.0	11.0	9.2	7.2	5.9	11.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.2						5.2	.0	1.4	6.0	7.7	4.9
TOT OBS	190	405	171	43	23	832		13.6	214	215	260	143
TOT PCT	22.8	48.7	20.6	5.2	2.8		100.0		100.0	100.0	100.0	100.0

JULY

PERIOD: (PRIMARY) 1957-1977
(OVER-ALL) 1873-1977

AREA 0032 CHRISTCHURCH
43.5S 173.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	1.4	4.2	32.7	42.5	10.3	7.5	1.4	15.4	100.0	214
06&09	0.0	4.2	39.5	36.3	10.2	2.3	1.4	13.3	100.0	215
12&15	7.7	3.5	36.9	41.2	7.7	3.1	.0	12.3	100.0	260
18&21	4.9	4.2	36.4	39.2	9.8	5.6	.0	13.6	100.0	143
TOT	43	33	303	332	78	37	6	13.6		832
PCT	5.2	4.0	36.4	39.9	9.4	4.4	.7		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.2	1.8	4.9	3.0		4.4
NE	3.5	2.6	5.5	3.8		4.5
E	1.2	.5	1.6	2.0		5.4
SE	.5	.1	1.7	1.9		6.5
S	1.5	1.6	3.3	6.0		6.1
SW	3.0	3.0	7.2	12.6		6.1
W	2.5	.9	1.1	2.0		4.4
NW	3.3	1.6	1.2	1.4		3.6
VAR	.0	.0	.0	.0		.0
CALM	3.8	.4	1.7	.4		2.7
TOT OBS	139	65	148	174	526	5.0
TOT PCT	26.4	12.4	28.1	33.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.8	.0	.2	1.0	1.9	2.2	.5	.1	.0	.1	8.5	
NE	.7	.0	.0	1.1	2.4	3.1	.4	.0	.0	*	9.6	
E	.1	.0	.0	.3	1.0	1.8	.0	.0	.0	.0	2.0	
SE	.1	.0	.2	.2	1.4	1.3	.0	.2	.0	.0	.8	
S	.9	.4	.5	1.7	2.3	2.9	.2	.0	.0	.0	3.5	
SW	1.0	.6	1.0	2.6	7.0	6.3	.4	.0	.0	.0	7.1	
W	.1	.0	.2	.1	.9	1.3	.3	.0	.0	.0	3.6	
NW	.0	.0	.0	.2	1.2	.7	.2	*	.0	.0	4.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.4	.8	.2	.2	.0	.0	.0	4.8	
TOT OBS	17	5	11	40	99	104	12	2	0	1	235	526
TOT PCT	3.2	1.0	2.1	7.6	18.8	19.8	2.3	.4	.0	.2	44.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.2	.2	.2	.2	.2	.2	.2	.2
= OR >5000	.6	.6	.6	.6	.6	.6	.6	.6
= OR >3500	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
= OR >2000	20.8	22.1	22.3	22.3	22.3	22.3	22.3	22.3
= OR >1000	33.9	39.0	40.6	40.8	40.8	40.8	40.8	40.8
= OR >400	37.1	45.5	47.9	48.3	48.3	48.3	48.3	48.3
= OR >300	37.6	46.4	49.6	50.4	50.4	50.4	50.4	50.4
= OR >150	37.6	46.8	50.6	51.3	51.3	51.3	51.3	51.3
= OR > 0	38.4	48.1	53.0	54.1	54.1	54.1	54.3	54.5
TOTAL	205	257	283	289	289	289	290	291

TOTAL NUMBER OF OBS: 534 PCT FREQ NH <5/8: 45.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
19.5	7.7	9.8	6.1	6.6	4.2	9.2	11.0	28.6	2.6	574

PERIOD: (PRIMARY) 1957-1977
(OVER-ALL) 1873-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	*	.1	*	.1	.0	.0	.0	.0	.0	.3	
	TOT %	.0	*	.1	*	.1	.1	.0	.0	.0	.0	.4	
1/2<1	PCP	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.3	
	TOT %	.0	.3	.0	.0	.2	.1	.0	.0	.0	.0	.6	
1<2	PCP	.2	*	.1	.1	.1	.1	.1	.0	.0	.0	.8	
	NO PCP	.0	.0	.0	*	.1	.1	.0	.0	.0	.0	.3	
	TOT %	.2	*	.1	.2	.2	.2	.1	.0	.0	.0	1.1	
2<5	PCP	.2	.4	.0	.3	.8	1.6	.1	*	.0	.0	3.5	
	NO PCP	.0	.0	.0	.0	.1	.8	.0	.0	.0	.0	1.0	
	TOT %	.2	.4	.0	.3	.9	2.4	.1	*	.0	.0	4.4	
5<10	PCP	.5	.5	1.6	.1	1.4	3.1	.1	.2	.0	.0	7.5	
	NO PCP	1.5	1.5	.4	.4	1.5	3.2	.1	1.4	.0	.4	10.3	
	TOT %	1.9	2.0	2.0	.6	2.8	6.2	.2	1.5	.0	.4	17.8	
10+	PCP	.3	*	.1	.3	.8	.5	.1	.2	.0	.0	2.4	
	NO PCP	12.4	12.3	3.6	3.2	8.1	16.5	5.9	5.9	.0	5.3	73.3	
	TOT %	12.7	12.4	3.8	3.5	8.9	17.0	6.1	6.1	.0	5.3	75.7	
	TOT OBS												720
	TOT PCT	15.2	15.1	6.0	4.5	13.2	26.0	6.6	7.7	.0	5.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	*	.1	*	.1	.0	.0	.0	.0		.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0		.1	
	TOT %	.0	*	.1	*	.1	.1	.0	.0	.0	.0	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.0	.0	.0	.2	.1	.0	.0	.0		.3	
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	TOT %	.0	.3	.0	.0	.2	.1	.0	.0	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.1	.0	.0	.0	.0	.0		.3	
	11-21	.0	.0	.0	*	.1	.0	.0	.0	.0		.1	
	22+	.2	*	.0	.0	.1	.2	.1	.0	.0		.7	
	TOT %	.2	*	.1	.2	.2	.2	.1	.0	.0	.0	1.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.3	.0	.1	.2	.2	.1	.0	.0		1.2	
	11-21	.1	.3	.0	.1	.0	.5	.0	*	.0		1.1	
	22+	.0	.0	.0	*	.9	1.6	.0	.0	.0		2.5	
	TOT %	.4	.5	.0	.3	1.1	2.4	.1	*	.0	.0	4.8	
5<10	0-3	.3	.0	.1	.1	.1	.0	.0	.1	.0	.4	1.1	
	4-10	.8	.7	.0	.3	.6	.9	.1	1.1	.0		4.4	
	11-21	.5	.8	.9	.2	1.1	2.5	.2	.3	.0		6.5	
	22+	.2	.4	.9	.0	.9	2.7	.0	*	.0		5.2	
	TOT %	1.9	1.9	1.9	.5	2.7	6.1	.2	1.5	.0	.4	17.2	
10+	0-3	.3	.9	.3	.0	.5	.4	.4	.1	.0	5.1	8.0	
	4-10	5.6	5.0	1.8	2.0	3.3	5.3	2.5	3.6	.0		29.0	
	11-21	6.0	6.1	1.9	1.4	4.5	8.4	2.5	2.0	.0		32.8	
	22+	1.0	.4	.1	.0	.6	2.8	.6	.7	.0		6.3	
	TOT %	12.9	12.4	4.1	3.3	8.9	16.8	6.0	6.5	.0	5.1	76.0	
	TOT OBS												751
	TOT PCT	15.4	15.2	6.3	4.4	13.2	25.7	6.4	8.0	.0	5.5	100.0	

JULY

PERIOD: (PRIMARY) 1957-1977
(OVER-ALL) 1873-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	4.4	1.3	3.8	7.0	22.0	18.4	3.8	.6	.0	.0	62.0	38.0	158
06&09	1.8	1.8	1.2	3.0	15.2	27.4	1.8	.6	.0	.6	53.7	46.3	164
12&15	3.3	.0	.7	7.8	16.3	12.4	1.3	.0	.0	.0	41.8	58.2	153
18&21	2.5	.0	2.5	15.2	19.0	13.9	1.3	.0	.0	.0	54.4	45.6	79
TOT	17	5	11	40	101	104	12	2	0	1	293	261	554
PCT	3.1	.9	2.0	7.2	18.2	18.8	2.2	.4	.0	.2	52.9	47.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.5	.0	2.6	8.5	19.0	69.3	189
06&09	.0	.5	1.0	3.4	13.5	81.6	207
12&15	.8	.8	.0	2.4	17.3	78.7	249
18&21	.0	1.5	.8	5.4	22.3	70.0	130
TOT	3	5	8	36	136	587	775
PCT	.4	.6	1.0	4.6	17.5	75.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	4.5	9.6	20.5	42.3	37.2	156
06&09	1.9	5.1	8.9	46.5	44.6	157
12&15	3.5	4.2	14.0	30.1	55.9	143
18&21	2.6	5.1	23.1	33.3	43.6	78
TOT	17	33	84	208	242	534
PCT	3.2	6.2	15.7	39.0	45.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.2	.0	.0	.0	.0	1	.2
65/69	.0	.0	.0	.2	.0	.0	.0	.0	1	.2
60/64	.0	.2	.2	.2	.0	.0	.0	.0	3	.7
55/59	.0	.0	.0	.2	1.0	1.2	1.2	.5	17	4.1
50/54	.0	.0	.7	1.5	5.1	10.5	11.2	9.5	158	38.4
45/49	.0	.0	.2	1.9	2.9	9.5	13.6	16.1	180	43.8
40/44	.0	.0	.0	.2	1.2	2.4	2.4	5.8	50	12.2
30/34	.0	.0	.0	.0	.0	.0	.0	.2	1	.2
TOTAL	0	1	5	17	42	97	117	132	411	100.0
PCT	.0	.2	1.2	4.1	10.2	23.6	28.5	32.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
.0	.0	.0	.0	.0	.1	.2	.0	.0	.0
.0	.2	.0	.0	.4	.1	.0	.0	.0	.0
1.6	.2	.0	.0	.2	.5	.2	1.3	.0	.0
10.5	6.6	1.7	.9	3.6	6.0	2.4	5.0	.0	1.7
4.9	5.8	1.4	3.0	6.9	13.6	3.5	2.6	.0	2.2
.0	.4	.6	.8	3.2	4.8	1.0	.5	.0	1.0
.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
17.1	13.5	3.7	4.6	14.2	25.1	7.3	9.6	.0	4.9

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	64	59	55	49	44	42	41	49.5	210
06&09	68	59	54	50	43	41	37	49.1	215
12&15	72	57	54	48	43	41	40	48.3	267
18&21	70	67	54	48	42	41	32	48.3	143
TOT	72	59	54	48	43	41	32	48.8	835

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	6.7	12.4	27.0	28.1	25.8	81	89
06&09	.0	7.8	11.8	25.5	30.4	24.5	81	102
12&15	.0	3.4	8.7	19.5	30.9	37.6	85	149
18&21	.0	6.2	8.6	25.9	21.0	38.3	83	81
TOT	0	24	43	100	119	135	83	421

PERIOD: (PRIMARY) 1957-1977
(OVER-ALL) 1873-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WD FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
14/16	.0	.0	.0	.0	.0	.0	.0	.2	.2	2	.0	.4
11/13	.0	.0	.0	.0	.2	.0	.0	.0	.0	1	.0	.2
9/10	.0	.0	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
7/8	.0	.0	.0	.0	.2	.5	.2	.0	.0	5	.0	.9
6	.0	.0	.0	.2	.2	.0	.0	.0	.0	2	.0	.4
5	.0	.0	.4	.0	1.4	.0	.0	.0	.0	10	.2	1.6
4	.0	.0	.7	1.1	.7	.2	.2	.0	.0	16	.0	2.9
3	.0	.0	.2	1.4	2.0	.0	.0	.0	.0	20	.0	3.6
2	.0	.0	2.4	4.7	2.7	.0	.0	.0	.0	54	.0	9.8
1	.0	.4	1.1	7.8	1.6	.0	.0	.0	.0	60	.0	10.9
0	.0	.0	1.4	6.9	.9	.0	.0	.0	.0	51	.4	8.9
-1	.0	.4	4.3	7.1	.2	.0	.0	.0	.0	66	.4	11.6
-2	.0	.4	6.0	2.7	.2	.0	.0	.0	.0	51	.2	9.1
-3	.0	.9	6.0	2.5	.2	.0	.0	.0	.0	53	.0	9.6
-4	.0	.7	6.5	.5	.0	.0	.0	.0	.0	43	.2	7.6
-5	.0	1.1	6.0	.5	.0	.0	.0	.0	.0	42	.0	7.6
-6	.0	.9	2.4	.2	.0	.0	.0	.0	.0	19	.0	3.4
-7/-8	.0	1.8	1.6	.0	.0	.0	.0	.0	.0	19	.2	3.3
-9/-10	.2	1.3	2.7	.2	.0	.0	.0	.0	.0	24	.2	4.2
-11/-13	.0	.2	1.1	.0	.0	.0	.0	.0	.0	7	.0	1.3
-14/-16	.0	.0	.9	.0	.0	.0	.0	.0	.0	5	.0	.9
TOTAL	1	44	241	199	98	4	2	2	1	552	9	543
PCT	.2	8.0	43.7	36.1	10.5	.7	.4	.4	.2	100.0	1.6	98.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.9	.0	.0	.0	.0	1.1
1-2	.0	3.3	.1	.0	.0	.0	3.5
3-4	.0	1.9	2.4	.1	.0	.0	4.4
5-6	.0	.3	2.7	.3	.2	.0	3.6
7	.0	.0	.8	.0	.0	.0	.8
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.3	.2	.1	.0	.7
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	6.5	6.9	1.0	.3	.0	14.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.2	.0	.0	.0	.0	1.6
1-2	.4	1.6	1.0	.0	.0	.0	3.0
3-4	.0	1.5	3.2	*	.0	.0	4.8
5-6	.0	.8	2.4	*	.0	.0	3.3
7	.0	.4	1.1	.2	.0	.0	1.7
8-9	.0	.0	.9	.2	.0	.0	1.1
10-11	.0	.0	*	.2	.0	.0	.2
12	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	5.5	8.7	.7	.0	.0	15.8

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.3	.0	.0	.0	.0	.5
1-2	.0	1.1	.0	.0	.0	.0	1.1
3-4	.0	.7	.9	.0	.0	.0	1.7
5-6	.0	.0	1.7	.0	.0	.0	1.7
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.2	.4	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.1	3.0	.4	.0	.0	5.7

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2
1-2	.0	2.0	.0	.0	.0	.0	2.0
3-4	.0	.1	1.0	.0	.0	.0	1.1
5-6	.0	*	.7	.0	.0	.0	.8
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	*	.0	.0	*
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.4	2.0	*	.0	.0	4.4

PERIOD: (OVER-ALL) 1963-1977

JULY

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8
1-2	.2	1.4	.7	.0	.0	.0	2.3
3-4	.4	1.8	2.7	.0	.0	.0	5.0
5-6	.0	.1	1.5	.3	.0	.0	2.0
7	.0	.0	.6	.0	.3	.0	.9
8-9	.0	.0	.2	.0	.3	.0	.5
10-11	.0	.0	.0	.3	.3	.0	.6
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.2	.2	.1	.5
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.1	.0	.1
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.2	.0	.2
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.0	5.7	.9	1.5	.1	13.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3
1-2	.4	3.5	.9	.0	.0	.0	4.9
3-4	.0	1.9	3.0	.4	.0	.0	5.3
5-6	.0	.6	3.7	.9	.6	.0	5.8
7	.0	.0	2.7	.4	.1	.0	3.3
8-9	.0	.0	.8	.4	*	.2	1.4
10-11	.0	.0	.2	.4	*	.0	.7
12	.0	.0	.2	.8	.0	.0	1.0
13-16	.0	.0	.2	.5	.8	.2	1.7
17-19	.0	.0	.2	.4	.0	.0	.6
20-22	.0	.0	.0	.2	1.4	.0	1.6
23-25	.0	.0	.0	.0	.6	.0	.6
26-32	.0	.0	.0	.0	.0	.2	.2
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	6.4	12.0	4.5	3.6	.6	27.5

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.4	.3	.3	.0	.0	.0	1.1
3-4	.0	1.4	.6	.0	.0	.0	2.1
5-6	.0	.1	1.0	.0	.0	.0	1.2
7	.0	.0	.3	.1	.0	.0	.5
8-9	.0	.0	.2	.2	.2	.0	.6
10-11	.0	.0	.1	.2	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.9	2.7	.8	.2	.0	7.0

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.5	.0	.0	.0	.0	.5	
1-2	.0	3.2	.2	.0	.0	.0	3.4	
3-4	.0	.8	.6	.0	.0	.0	1.5	
5-6	.0	.0	.9	.2	.0	.0	1.1	
7	.0	.0	.2	.0	.0	.0	.2	
8-9	.0	.0	.0	.2	.0	.0	.2	
10-11	.0	.0	.0	.0	*	.0	*	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	4.5	2.0	.6	*	.0	7.2	95.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.8	5.1	.0	.0	.0	.0	10.9	
1-2	1.6	16.3	3.3	.0	.0	.0	21.2	
3-4	.4	10.1	14.4	.6	.0	.0	25.5	
5-6	.2	2.1	14.6	1.8	.8	.0	19.5	
7	.0	.4	6.2	.8	.4	.0	7.8	
8-9	.0	.0	2.7	1.4	.6	.2	4.9	
10-11	.0	.0	.8	1.4	.6	.0	2.7	
12	.0	.0	.2	1.2	.0	.0	1.4	
13-16	.0	.0	.2	1.4	1.0	.4	2.9	
17-19	.0	.0	.2	.4	.0	.0	.6	
20-22	.0	.0	.0	.2	1.4	.0	1.6	
23-25	.0	.0	.0	.0	.8	.0	.8	
26-32	.0	.0	.0	.0	.0	.2	.2	
33-40	.0	.0	.0	.0	.2	.0	.2	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.0	34.0	42.6	8.9	5.6	.8	100.0	914

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	4.6	14.5	10.1	4.4	1.8	.6	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	201	4
6-7	.0	.4	3.3	9.2	6.3	3.5	1.5	.4	1.1	.4	.6	.4	.0	.0	.0	.0	.0	.0	.0	148	7
8-9	.0	.2	1.3	2.8	3.1	1.7	2.4	1.5	1.1	.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	82	9
10-11	.0	.6	.6	.6	1.8	.7	.6	.4	.6	.4	1.1	.2	.2	.0	.0	.0	.0	.0	.0	41	11
12-13	.0	.0	1.8	.2	1.5	.0	.0	.2	.2	.0	.4	.2	.2	.0	.2	.0	.0	.0	.0	24	8
>13	.0	.0	.0	.4	.2	.2	.0	.0	.4	.0	.2	.2	.0	.2	.0	.0	.0	.0	.0	9	14
INDET	3.5	1.5	.9	.4	.6	.0	.0	.2	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	41	3
TOTAL	21	39	122	128	97	43	27	14	22	7	16	5	2	1	0	0	0	0	0	944	6
PCT	3.9	7.2	22.4	23.5	17.8	7.9	5.0	2.6	4.0	1.3	2.9	.9	.4	.2	.0	.0	.0	.0	.0	100.0	

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PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1872-1977

AREA 0092 CHRISTCHURCH
43.65 173.28

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	.0	2.2	.0	.0	.0	.0	.0	2.2	.0	2.7	3.0	.0	.8	.0	.0	91.4
NE	3.5	.0	3.3	.0	.0	.0	.0	6.8	1.1	.5	4.6	.0	.3	.0	.0	86.7
E	10.7	1.9	3.7	.0	.0	.0	.0	16.3	5.6	.0	.9	.0	.0	.0	.0	77.2
SE	8.0	.0	3.6	.0	.0	.0	.0	11.6	5.8	.0	1.4	.0	.0	.0	.0	81.2
S	14.4	8.8	3.2	.0	.0	.0	.0	26.5	1.2	.0	1.8	.0	.0	.0	.0	70.6
SW	13.2	7.5	6.2	.0	.0	.0	.0	26.9	6.4	.0	.9	.0	.0	.0	.0	65.9
W	.0	7.9	.0	.0	.0	.0	.0	7.9	2.6	.0	4.7	.0	.0	.0	.0	85.0
NW	.0	5.6	.0	.0	.0	.0	.0	5.6	.0	.0	2.2	2.2	.0	.0	.0	89.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.8	.0	.0	.0	.0	88.2
TOT PCT	6.7	4.1	2.7	.0	.0	.0	.0	13.6	2.6	.5	2.9	.2	.2	.0		80.1
TOT OBS:	582															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	5.0	2.1	2.8	.0	.0	.0	.0	9.9	2.1	.0	2.8	.0	.0	.0		85.1
06&09	5.4	4.0	3.4	.0	.0	.0	.0	12.8	2.7	.0	4.7	.0	.7	.0		79.2
12&15	7.0	5.5	2.5	.0	.0	.0	.0	15.1	2.5	1.5	2.0	.0	.0	.0		78.9
18&21	8.7	3.2	2.4	.0	.0	.0	.0	14.3	2.4	.0	2.4	.8	.0	.0		80.2
TOT PCT	6.5	3.9	2.8	.0	.0	.0	.0	13.2	2.4	.5	2.9	.2	.2	.0		80.7
TOT OBS:	615															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	7.3	7.2	1.1	.1	.1		16.7	12.0	16.4	18.4	15.4	19.6	15.6	32.4	10.4	26.8
NE	1.3	7.5	6.6	1.7	.0	.0		17.0	11.9	13.8	31.6	22.0	14.1	17.6	5.6	17.6	16.7
E	.2	4.6	3.2	.9	.1	.0		9.1	12.2	12.5	.0	15.2	6.5	8.3	12.0	3.2	7.7
SE	.3	3.9	1.5	.0	.0	.0		5.7	8.4	5.4	.0	6.3	6.9	4.3	.0	9.9	3.2
S	1.0	6.2	5.5	2.3	.0	.0		14.9	12.8	14.2	13.2	19.9	14.1	13.9	14.8	11.9	19.9
SW	.6	6.0	5.5	4.3	1.6	.6		18.6	18.3	18.8	13.2	14.3	18.1	18.3	9.3	29.1	11.5
W	.6	3.3	.5	.8	.1	.1		5.4	11.9	4.7	13.2	2.6	9.4	5.6	12.0	4.1	3.8
NW	.4	3.8	1.9	.5	.2	.2		7.0	12.6	6.7	5.3	1.6	8.3	9.7	10.2	6.8	7.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.6							5.6	.0	7.5	5.3	2.8	2.9	4.9	3.7	7.2	2.6
TOT OBS	74	290	219	78	15	7	681		12.5	134	19	107	69	175	27	111	39
TOT PCT	10.9	42.6	31.9	11.5	2.2	1.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.4	8.1	3.6	.5	.1		16.7	12.0	16.7	17.0	17.8	16.7
NE	4.0	9.1	3.3	.7	.0		17.0	11.9	16.0	18.9	16.0	17.3
E	3.3	3.1	2.3	.4	.0		9.1	12.2	10.9	11.8	8.8	4.3
SE	2.1	3.4	.1	.0	.0		5.7	8.4	4.7	6.5	3.7	8.2
S	3.3	6.7	4.0	.7	.0		14.9	12.8	14.1	17.6	14.0	14.0
SW	2.9	6.9	5.1	2.6	1.2		18.6	18.3	18.1	15.8	17.1	24.5
W	2.2	2.0	.7	.4	.1		5.4	11.9	5.7	5.3	6.4	4.0
NW	2.2	3.0	1.4	.2	.2		7.0	12.6	6.5	4.3	9.8	7.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.6						5.6	.0				
TOT OBS	205	288	140	37	11	681		12.5	193	176	202	130
TOT PCT	30.1	42.3	20.6	5.4	1.6		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	7.2	4.6	40.5	35.3	10.5	2.0	.0	11.9	100.0	153
06&09	2.8	5.1	42.6	33.0	12.5	3.4	.6	13.1	100.0	176
12&15	6.4	2.5	45.5	32.7	10.4	1.5	1.0	12.3	100.0	202
18&21	6.0	10.0	40.7	26.0	12.7	2.0	2.7	12.5	100.0	150
TOT	38	36	290	217	78	15	7	12.5		681
PCT	5.6	5.3	42.6	31.9	11.5	2.2	1.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.9	1.5	4.0	3.7		4.2
NE	4.4	1.0	5.4	5.4		5.1
E	2.5	1.0	4.5	3.4		5.3
SE	1.4	.9	2.5	3.9		5.8
S	2.5	1.0	6.5	5.8		5.9
SW	2.9	2.1	5.0	8.0		5.7
W	1.9	.0	1.1	.7		3.9
NW	2.6	.6	1.6	1.6		4.2
VAR	.0	.0	.0	.0		.0
CALM	1.9	.8	1.1	.8		3.6
TOT OBS	95	32	115	121	363	5.1
TOT PCT	26.2	8.8	31.7	33.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.2	.0	.5	2.2	.4	.2	.4	.0	.8	10.2	
NE	1.2	.1	.6	1.0	2.5	1.9	.6	.1	.0	.0	8.4	
E	.4	.0	.0	1.0	3.1	1.2	.8	.8	.0	.0	4.1	
SE	.2	.3	.0	2.9	1.4	1.7	.3	.0	.0	.0	2.6	
S	.7	.3	.7	2.6	4.0	1.5	1.1	.0	.0	.0	4.9	
SW	1.7	.0	1.0	2.6	4.5	1.5	.8	.0	.0	.0	5.8	
W	.0	.0	.0	.9	.2	.2	.0	.0	.3	.0	2.8	
NW	.0	.0	.0	.3	1.0	.4	.6	.1	.0	.1	3.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.9	.0	.0	.9	.3	.3	.8	.0	.0	.0	2.8	
TOT OBS	17	3	8	39	70	33	19	5	1	3	165	363
TOT PCT	4.7	.8	2.2	10.7	19.3	9.1	5.2	1.4	.3	.8	45.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
* OR >5000	2.1	2.3	2.6	2.6	2.6	2.6	2.6	2.6
* OR >3500	5.7	7.0	7.5	7.5	7.5	7.5	7.5	7.5
* OR >2000	13.5	16.4	17.1	17.1	17.1	17.1	17.1	17.1
* OR >1000	28.1	35.3	37.4	37.4	37.4	37.4	37.4	37.4
* OR >600	31.4	44.7	48.1	48.1	48.1	48.1	48.1	48.1
* OR >300	31.9	46.8	50.1	50.1	50.1	50.1	50.1	50.1
* OR >150	32.2	47.0	50.9	50.9	50.9	50.9	50.9	50.9
* OR > 0	33.0	48.8	53.5	54.3	54.5	55.1	55.1	55.1
TOTAL	127	188	206	209	210	212	212	212

TOTAL NUMBER OF OBS: 385 PCT FREQ NH <5/8: 44.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
15.9	11.5	6.7	6.0	4.1	4.3	9.4	10.8	27.6	3.6	416

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.1	.6	.1	.1	.0	.0	.0	.2	.0	.3	1.4	
	TOT %	.1	.6	.1	.1	.0	.0	.0	.2	.0	.3	1.4	
	PCP	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.3	
1/2<1	NO PCP	.2	.0	.0	.0	.1	.2	.3	.0	.0	.2	.9	
	TOT %	.2	.0	.0	.0	.2	.4	.3	.0	.0	.2	1.2	
	PCP	.0	.2	.2	.0	.0	.3	.0	.0	.0	.0	.7	
1<2	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.2	.0	.0	.3	.0	.0	.0	.0	.7	
	PCP	.0	.0	.5	.0	.3	1.1	.0	.0	.0	.0	1.9	
2<5	NO PCP	.1	.4	.7	.2	.2	.6	.3	.0	.0	.0	2.4	
	TOT %	.1	.4	1.2	.2	.4	1.7	.3	.0	.0	.0	4.3	
	PCP	.3	.7	.8	.4	2.8	2.8	.3	.2	.0	.0	8.4	
5<10	NO PCP	3.7	4.1	.8	.7	2.7	4.3	1.5	2.1	.0	.9	20.8	
	TOT %	4.1	4.8	1.6	1.1	5.5	7.1	1.9	2.3	.0	.9	29.2	
	PCP	.0	.2	.0	.3	.7	.7	.1	.3	.0	.0	2.2	
10+	NO PCP	11.4	9.8	6.2	4.3	7.8	9.2	2.9	4.9	.0	4.5	61.0	
	TOT %	11.4	9.9	6.2	4.6	8.5	10.0	3.0	5.2	.0	4.5	63.2	
	TOT OBS												582
	TOT PCT	15.9	15.9	9.2	5.9	14.6	19.5	5.5	7.6	.0	5.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	
<1/2	4-10	.1	*	.1	.1	.0	.0	.0	.2	.0		.5	
	11-21	.0	.3	.0	.0	.0	.0	.0	.0	.0		.3	
	22+	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.1	.5	.1	.1	.0	.0	.0	.2	.0	.5	1.5	
	0-3	.0	.0	.0	.0	.1	.2	.2	.1	.0	.2	.7	
1/2<1	4-10	.0	.0	.0	.0	.1	.3	.2	.0	.0		.5	
	11-21	.2	.0	.0	.0	.0	.0	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.0	.0	.0	.2	.4	.3	.1	.0	.2	1.3	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.1	.5	.3	.0	.0	.0	.0	.0	.0		.8	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0		.2	
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0		.2	
	TOT %	.1	.5	.3	.0	.0	.3	.0	.0	.0	.0	1.2	
	0-3	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.5	
2<5	4-10	.1	.3	.4	.0	.2	.0	.3	.1	.0		1.3	
	11-21	.0	.0	.5	.2	.1	.5	.0	.0	.0		1.3	
	22+	.0	.0	.3	.0	.1	1.1	.1	.0	.0		1.7	
	TOT %	.1	.8	1.3	.2	.4	1.6	.4	.1	.0	.0	4.9	
	0-3	.2	.2	.0	.0	.5	.0	.0	.2	.0	.8	1.9	
5<10	4-10	2.0	2.1	.3	.8	1.9	1.8	.6	1.3	.0		10.8	
	11-21	1.3	1.9	.8	.3	1.8	1.5	.4	.4	.0		8.4	
	22+	.5	.5	.5	.0	1.2	3.8	.8	.4	.0		7.8	
	TOT %	4.0	4.7	1.6	1.1	5.4	7.1	1.9	2.2	.0	.8	28.8	
	0-3	.6	.4	.1	.2	.3	.5	.4	.2	.0	4.4	7.1	
10+	4-10	4.2	4.4	3.1	3.2	3.9	3.7	2.4	2.5	.0		27.5	
	11-21	5.5	4.1	2.4	1.1	3.2	3.8	.1	1.8	.0		22.1	
	22+	.8	.8	.4	.0	.9	1.8	.1	.6	.0		5.6	
	TOT %	11.2	9.7	6.1	4.5	8.3	9.8	3.1	5.1	.0	4.4	62.2	
	TOT OBS												993
	TOT PCT	15.7	16.3	9.2	5.8	14.3	19.4	5.6	7.7	.0	5.9	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	.9	.0	.9	9.4	19.8	13.2	7.5	2.8	.9	.9	56.6	43.4	106
06&09	2.8	1.9	2.8	13.1	11.2	9.3	5.6	.9	.0	.9	48.6	51.4	107
12&15	9.2	.0	.9	7.3	21.1	5.5	3.7	.9	.0	.9	49.5	50.5	109
18&21	3.9	1.3	3.9	11.8	28.9	9.2	2.6	1.3	.0	.0	63.2	36.8	76
TOT	17	3	8	41	78	37	20	6	1	3	214	184	398
PCT	4.3	.8	2.0	10.3	19.6	9.3	5.0	1.5	.3	.8	53.8	46.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.7	2.8	.0	2.1	29.6	64.8	142
06&09	2.0	.7	.7	4.6	30.1	62.1	153
12&15	1.5	.5	3.0	3.0	25.4	66.7	201
18&21	2.3	1.5	.0	10.8	30.8	54.6	130
TOT	10	8	7	30	179	392	626
PCT	1.6	1.3	1.1	4.8	28.6	62.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.0	1.9	11.5	45.2	43.3	104
06&09	2.9	7.8	21.6	29.4	49.0	102
12&15	8.7	9.6	20.2	30.8	49.0	104
18&21	4.0	9.3	28.0	36.0	36.0	75
TOT	16	27	76	136	173	385
PCT	4.2	7.0	19.7	35.3	44.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/64	.0	.0	.3	.3	.0	.0	.0	.0	2	.6
55/59	.0	.0	.0	.9	2.2	1.2	.9	.6	19	5.9
50/54	.0	.0	.0	.3	3.4	5.6	14.2	12.1	115	35.6
45/49	.0	.3	.3	.0	1.9	10.2	19.5	16.1	156	48.3
40/44	.0	.0	.0	.0	.6	1.5	2.2	5.3	31	9.6
TOTAL	0	1	2	5	26	60	119	110	323	100.0
PCT	.0	.3	.6	1.5	8.0	18.6	36.8	34.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.3	.0	.0	.3	.0	.0	.0	.0	.0
2.9	1.4	.3	.3	.0	.0	.2	.8	.0	.0
8.2	12.3	2.7	.4	1.8	3.0	1.9	5.3	.0	.0
5.3	5.4	6.5	5.5	9.5	11.2	1.4	1.3	.0	2.2
.5	1.2	.5	1.0	2.5	2.5	.4	.2	.0	.9
16.8	20.6	10.1	7.2	14.1	16.7	3.9	7.6	.0	3.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	63	59	56	50	44	41	40	49.9	156
06&09	61	59	54	48	43	34	32	48.3	165
12&15	64	58	55	48	43	39	33	48.3	207
18&21	56	55	54	47	41	40	32	47.4	147
TOT	64	58	55	48	43	39	32	48.5	675

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	1.5	13.4	28.4	25.4	31.3	83	67
06&09	.0	2.1	6.4	17.0	40.4	34.0	85	94
12&15	.0	5.5	5.5	19.1	33.6	36.4	85	110
18&21	.0	.0	8.3	13.9	43.1	34.7	86	72
TOT	0	9	27	66	123	118	85	343

AUGUST

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1872-1977

AREA 0092 CHRISTCHURCH
43.6S 173.2E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	33 36	37 40	41 44	45 48	49 52	53 56	57 60	61 64	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
11/13	.0	.0	.0	.0	.0	.0	.2	.2	2	.0	.5
9/10	.0	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
7/8	.0	.0	.0	.0	.0	.2	.9	.0	5	.0	1.2
6	.0	.0	.0	.0	.5	1.6	.2	.0	10	.2	2.1
5	.0	.0	.0	.2	1.2	2.3	.0	.0	16	.2	3.5
4	.0	.0	.0	.2	2.1	1.4	.0	.0	16	.0	3.7
3	.0	.0	.0	.2	2.1	1.9	.0	.0	18	.0	4.2
2	.0	.0	.0	1.4	4.9	1.6	.0	.0	34	.0	7.9
1	.0	.0	.0	3.0	6.3	.5	.0	.0	42	.5	9.3
0	.0	.0	.7	4.7	4.4	.7	.0	.0	45	.0	10.5
-1	.0	.0	.2	4.4	4.0	.9	.0	.0	41	.0	9.5
-2	.0	.0	1.9	5.1	2.8	.5	.0	.0	44	.0	10.2
-3	.0	.0	1.4	7.9	1.9	.0	.0	.0	48	.9	10.2
-4	.0	.0	2.1	3.5	.9	.0	.0	.0	28	.0	6.5
-5	.0	.2	2.3	4.9	.9	.0	.0	.0	36	.2	8.1
-6	.0	.0	1.2	2.6	.0	.0	.0	.0	16	.0	3.7
-7/-8	.0	.5	1.2	2.1	.7	.0	.0	.0	19	.0	4.4
-9/-10	.0	.2	.5	.5	.0	.0	.0	.0	5	.0	1.2
-11/-13	.2	.0	.5	.0	.0	.0	.0	.0	3	.0	.7
TOTAL	1	4	51	175	140	50	7	2	430	9	421
PCT	.2	.9	11.9	40.7	32.6	11.6	1.6	.5	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.6	.0	.0	.0	.0	1.9
1-2	.0	2.0	.7	.0	.0	.0	2.7
3-4	.0	1.6	3.3	.2	.0	.0	5.1
5-6	.0	.6	2.1	.3	.0	.0	3.0
7	.0	.0	.2	.4	.2	.0	.8
8-9	.0	.0	.2	.2	.0	.0	.4
10-11	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.8	8.5	1.3	.2	.0	16.1

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.5	.3	.0	.0	.0	2.3
1-2	.3	3.1	1.3	.0	.0	.0	4.8
3-4	.0	1.9	2.4	.3	.0	.0	4.6
5-6	.0	.3	1.3	.8	.0	.0	2.4
7	.0	.0	.6	.0	.0	.0	.6
8-9	.0	.0	.1	.8	.0	.0	1.0
10-11	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.9	6.2	2.1	.0	.0	16.0

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.5	.0	.0	.0	.0	1.7
1-2	.0	1.5	1.0	.0	.0	.0	2.4
3-4	.0	1.4	1.9	.2	.0	.0	3.5
5-6	.0	.3	.7	.5	.0	.0	1.5
7	.0	.0	.4	.3	.0	.0	.7
8-9	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.2	.0	.2	.0	.4
12	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.2	.2	.0	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.6	4.9	1.6	.3	.0	11.6

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	2.6	.6	.0	.0	.0	3.2
3-4	.0	1.7	1.3	.0	.0	.0	3.0
5-6	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.3	2.2	.0	.0	.0	7.5

PERIOD: (OVER-ALL) 1963-1977 AUGUST AREA 0032 CHRISTCHURCH 43.6S 173.2E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

	S							SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.2	.0	.0	.0	.0	2.2	.0	1.3	.0	.0	.0	.0	1.3
1-2	.3	2.0	.6	.0	.0	.0	2.9	.0	2.2	.8	.0	.0	.0	3.0
3-4	.0	1.5	2.2	1.0	.0	.0	4.8	.0	.8	1.7	.5	.0	.0	3.0
5-6	.3	.3	1.3	.4	.0	.0	2.2	.0	.3	2.0	.6	.0	.0	2.9
7	.0	.0	1.5	.9	.0	.0	2.4	.0	.3	1.0	.9	.0	.0	2.2
8-9	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.1	.8	.0	.9
10-11	.0	.0	.3	.4	.0	.0	.7	.0	.0	.0	.9	1.1	.5	.3	2.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0	.5
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.3	.3	1.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3	.5
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	6.0	5.8	3.2	.0	.0	15.6	.0	4.9	6.0	4.6	1.8	.8	18.1	

	W							NW							TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT
<1	.0	.6	.0	.0	.0	.0	.6	.0	.1	.0	.0	.0	.0	.1	
1-2	.3	1.2	.0	.0	.0	.0	1.5	.0	2.3	.6	.0	.0	.0	2.9	
3-4	.0	.7	.0	.0	.0	.0	.7	.0	.6	.8	.1	.0	.0	1.5	
5-6	.0	.3	.0	.2	.0	.0	.4	.0	.1	1.3	.0	.0	.0	1.3	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0	.6	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.3	.0	.2	.0	.0	.4	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	3.1	.0	.4	.0	.3	4.0	.0	3.0	2.7	.4	.3	.0	6.5	93.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.9	9.7	.3	.0	.0	.0	17.9	
1-2	1.0	16.9	5.6	.0	.0	.0	23.5	
3-4	.0	10.2	13.6	2.3	.0	.0	26.1	
5-6	.3	2.0	8.7	2.8	.0	.0	13.8	
7	.0	.3	4.1	2.8	.5	.0	7.7	
8-9	.0	.0	.8	1.5	.8	.0	3.1	
10-11	.0	.3	1.0	2.0	.8	.3	4.3	
12	.0	.0	.0	.8	.3	.0	1.0	
13-16	.0	.0	.3	1.0	.3	.5	2.0	
17-19	.0	.0	.0	.3	.0	.3	.5	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.2	39.4	34.3	13.6	2.6	1.0	100.0	391

PERIOD: (OVER-ALL) 1952-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.7	5.0	10.2	9.2	2.8	1.7	.5	.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	130	4
6-7	.0	1.4	4.0	7.3	6.6	3.3	4.0	1.4	2.8	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	134	7
8-9	.0	.5	.9	1.9	4.3	2.8	2.6	.7	1.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	68	8
10-11	.0	1.9	.7	.5	1.4	.5	.9	.7	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	34	7
12-13	.0	.0	1.9	.7	.7	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	5
>13	.0	.0	.0	.5	.9	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	8
INDET	3.3	.5	1.7	.9	.9	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	5
TOTAL	17	59	82	89	75	36	39	19	80	9	0	0	0	0	0	0	0	0	0	423	6
PCT	4.0	9.2	19.4	21.0	17.7	8.5	8.3	3.5	7.1	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	.7	.0	.0	.0	.0	.0	.0	.7	.0	.0	5.1	.0	.0		.0	94.2
NE	.2	1.6	.0	.0	.0	.0	.0	1.8	.9	.0	4.2	.0	.0		.8	92.3
E	2.3	.0	1.3	.0	.0	.0	.0	3.7	.0	1.3	12.0	.0	1.3		.0	83.1
SE	8.5	.0	6.7	.0	.0	.0	.0	15.2	.0	2.4	12.2	.0	.0		.0	72.6
S	5.0	3.1	5.4	.0	.0	.0	.0	13.4	2.1	.8	4.4	.0	.0		.0	79.3
SW	6.6	2.3	2.5	.0	.0	.0	.0	10.6	4.9	.8	1.7	.0	3.0		.8	78.3
W	6.7	4.1	4.7	.0	.0	.0	.0	13.5	1.6	.0	2.1	.0	2.1		.0	80.8
NW	.0	1.9	1.4	.0	.0	.0	.0	3.3	.0	.0	.0	1.9	1.9		.0	93.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.5	.0	.0		.0	88.5
TOT PCT	3.2	1.4	2.2	.0	.0	.0	.0	6.7	1.4	.5	5.0	.1	.9		.3	85.4
TOT OBS:	781															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.3	.9	.5	.0	.0	.0	.0	4.7	1.9	.0	6.1	.0	1.9		.5	85.0
06&09	.5	.5	1.5	.0	.0	.0	.0	2.5	1.5	1.0	5.4	.0	.5		.0	89.6
12&15	4.5	1.2	3.3	.0	.0	.0	.0	8.7	.8	.8	5.4	.0	.8		.4	83.5
18&21	3.5	2.9	3.5	.0	.0	.0	.0	9.9	1.9	.0	3.5	.6	.6		.6	83.6
TOT PCT	3.0	1.3	2.2	.0	.0	.0	.0	6.4	1.3	.5	5.2	.1	1.0		.4	85.4
TOT OBS:	828															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.8	8.8	7.8	1.1	.1	.0		18.6	12.0	19.7	18.1	14.0	22.6	20.0	18.8	18.2	19.9
NE	1.0	7.8	7.0	1.3	*	.0		17.1	11.4	13.0	18.8	20.2	11.1	21.3	11.8	17.0	15.4
E	1.0	4.9	2.6	.3	.1	.0		8.8	9.6	9.8	11.3	15.4	7.9	7.1	4.9	5.7	.0
SE	.3	2.7	1.8	.5	.1	.0		5.4	11.7	3.5	1.9	9.0	4.0	5.1	5.6	5.8	7.4
S	1.0	8.4	6.1	1.6	.7	.0		17.7	12.9	17.1	20.6	18.9	23.4	16.4	11.1	18.2	15.4
SW	.8	3.8	8.7	2.1	1.0	.0		16.4	16.3	18.8	18.1	12.1	14.3	13.1	31.9	17.7	22.8
W	.5	2.8	1.9	.2	.2	.0		5.7	11.0	5.1	2.5	1.4	5.2	8.3	8.3	6.8	9.6
NW	.1	3.5	2.4	.5	.1	.0		6.8	11.7	8.6	8.8	5.3	6.7	6.9	4.9	6.0	6.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.4							3.4	.0	4.4	.0	3.7	4.8	1.8	2.8	4.7	2.9
TOT OBS	82	389	350	70	21	0	912		12.1	206	40	161	63	222	36	150	34
TOT PCT	9.0	42.7	38.4	7.7	2.3	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.1	10.3	3.7	.5	.1		18.6	12.0	19.4	16.4	19.9	18.5
NE	4.7	9.4	2.7	.4	.0		17.1	11.4	13.9	17.6	20.0	16.7
E	3.5	4.3	.8	.2	.0		8.8	9.6	10.1	13.3	6.8	4.6
SE	1.5	2.3	1.4	.2	.0		5.4	11.7	3.3	7.6	5.1	6.1
S	3.4	9.8	3.3	.9	.3		17.7	12.9	17.7	20.2	15.7	17.7
SW	2.1	6.7	5.6	1.8	.2		16.4	16.3	18.7	12.7	15.7	18.6
W	2.2	2.7	.5	.2	.1		5.7	11.0	4.7	2.5	8.3	7.3
NW	1.9	3.8	.9	.1	.1		6.8	11.7	8.6	5.7	6.6	6.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.4						3.4	.0	3.7	4.0	1.9	4.3
TOT OBS	243	490	173	39	7	912		12.1	246	224	258	184
TOT PCT	26.6	49.3	19.0	4.3	.8		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	3.7	8.1	42.7	32.1	8.8	3.7	.0	12.5	100.0	246
06&09	4.0	3.6	44.2	41.1	7.1	.0	.0	11.4	100.0	224
12&15	1.9	5.4	41.9	39.9	8.1	2.7	.0	12.6	100.0	258
18&21	4.3	4.9	41.8	41.3	4.9	2.7	.0	11.6	100.0	184
TOT	31	51	389	350	70	21	0	12.1		912
PCT	3.4	5.6	42.7	38.4	7.7	2.3	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	8.8	2.9	5.8	3.4		3.9
NE	6.6	3.3	3.8	2.7		3.8
E	2.7	1.7	2.4	3.9		4.9
SE	.8	.3	2.1	1.9		5.8
S	3.0	1.8	5.8	4.7		5.3
SW	2.8	2.2	7.6	5.3		5.7
W	2.6	.8	1.2	1.3		3.7
NW	1.9	.6	2.5	.9		4.4
VAR	.0	.0	.0	.0		.0
CALM	1.3	.7	.5	.5		3.5
TOT OBS	168	79	174	130	551	4.6
TOT PCT	30.5	14.3	31.6	23.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.7	.0	.4	.5	2.1	1.5	.3	.4	.0	.0	14.9	
NE	.3	.0	*	.8	2.6	.8	.2	.0	.0	.2	11.4	
E	.6	.2	.0	.9	1.4	.9	.0	.0	.0	.1	5.9	
SE	.4	*	.0	1.0	.6	.7	.2	.0	.0	.2	1.6	
S	.5	.3	.4	1.2	3.7	2.3	.2	.3	.0	.0	6.5	
SW	.2	.2	.5	2.6	3.9	2.7	.6	*	.0	.0	7.1	
W	.6	.0	.1	.9	.1	.6	.3	.0	.0	.0	3.9	
NW	.1	.0	.1	.2	.5	.6	.6	.2	.0	.0	3.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.5	.0	.0	.0	.2	.4	.0	.0	.0	.0	2.0	
TOT OBS	22	4	9	41	84	58	13	5	0	3	312	551
TOT PCT	4.0	.7	1.6	7.4	15.2	10.5	2.4	.9	.0	.5	56.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.2	.7	.7	.7	.7	.7	.7	.7
* OR >5000	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
* OR >3500	2.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
* OR >2000	10.0	13.9	14.5	14.5	14.5	14.5	14.5	14.5
* OR >1000	21.2	29.3	29.8	29.8	29.9	29.9	29.9	29.9
* OR >400	24.3	36.0	37.0	37.0	37.2	37.2	37.2	37.2
* OR >300	25.0	37.2	38.6	38.6	38.7	38.7	38.7	38.7
* OR >150	25.0	37.2	39.2	39.2	39.4	39.4	39.4	39.4
* OR > 0	25.0	37.3	40.1	40.8	42.3	43.5	43.7	43.7
TOTAL	145	217	233	237	246	253	254	254

TOTAL NUMBER OF OBS: 581 PCT FREQ NH <5/8: 56.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
18.3	12.7	10.2	7.4	6.4	6.3	7.8	8.6	18.8	3.6	639

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	NO PCP	.9	.2	.3	.3	.0	.0	.0	.0	.0	.1	1.2	
	TOT %	.9	.2	.3	.3	.0	.0	.0	.0	.0	.1	1.2	
	PCP	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.3	
1/2<1	NO PCP	.9	.1	.5	.3	.3	.0	.1	.1	.0	.3	2.2	
	TOT %	.9	.1	.5	.3	.3	.0	.2	.3	.0	.3	2.4	
	PCP	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0	.3	
1<2	NO PCP	.0	.0	.1	.0	.1	.2	.2	.1	.0	.0	.8	
	TOT %	.0	.0	.1	.0	.1	.2	.4	.2	.0	.0	1.0	
	PCP	.1	.1	.0	.3	.5	.2	.3	.0	.0	.0	1.5	
2<5	NO PCP	.1	.5	.4	.1	.3	.6	.1	.0	.0	.0	2.0	
	TOT %	.2	.6	.4	.4	.8	.8	.4	.0	.0	.0	3.6	
	PCP	.0	.2	.2	.4	1.3	1.3	.3	.0	.0	.0	3.7	
5<10	NO PCP	3.0	3.7	1.8	1.5	3.8	5.0	.9	2.1	.0	.4	22.4	
	TOT %	3.0	3.9	2.0	2.0	5.2	6.3	1.2	2.1	.0	.4	26.1	
	PCP	.0	.0	.1	*	.4	.4	.0	.0	.0	.0	.9	
10+	NO PCP	15.2	11.1	6.2	2.3	10.0	9.3	4.0	4.2	.0	2.6	64.8	
	TOT %	15.2	11.1	6.3	2.3	10.3	9.7	4.0	4.2	.0	2.6	65.7	
	TOT OBS												781
	TOT PCT	19.3	15.8	9.6	5.2	16.7	16.9	6.2	6.8	.0	3.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.3	
<1/2	4-10	.3	*	.1	.3	.0	.0	.0	.0	.0		.6	
	11-21	.1	.1	.1	.0	.0	.0	.0	.0	.0		.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.3	.2	.3	.3	.0	.0	.0	.0	.0	.1	1.1	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	
1/2<1	4-10	.3	.0	.1	.0	.3	.0	.2	.3	.0		1.1	
	11-21	.3	.1	.4	.3	.0	.0	.0	.0	.0		1.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.5	.1	.5	.3	.3	.0	.2	.3	.0	.3	2.4	
	0-3	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0	.3	
1<2	4-10	.0	.0	.1	.0	.1	.0	.0	.1	.0		.4	
	11-21	.0	.0	.0	.0	.0	.2	.2	.0	.0		.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.1	.0	.1	.2	.4	.2	.0	.0	1.0	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	4-10	.2	.2	.2	.2	.5	.2	.0	.0	.0		1.5	
	11-21	.0	.3	.0	.1	.5	.4	.3	.0	.0		1.6	
	22+	.0	.1	.1	.1	.1	.3	.0	.0	.0		.8	
	TOT %	.2	.6	.3	.4	1.1	.9	.3	.0	.0	.0	3.9	
	0-3	.2	.3	.0	.2	.1	.0	.1	*	.0	.4	1.3	
5<10	4-10	1.2	1.2	.4	.4	2.4	.7	.3	1.0	.0		7.6	
	11-21	1.3	2.1	1.5	.9	1.5	3.8	.3	.9	.0		12.4	
	22+	.3	.3	.1	.4	1.1	1.9	.4	.2	.0		4.7	
	TOT %	3.0	3.8	2.0	1.9	5.1	6.3	1.2	2.1	.0	.4	25.9	
	0-3	.7	.4	.8	.1	.9	.9	.2	.1	.0	2.7	6.7	
10+	4-10	6.6	5.7	4.3	1.5	4.3	2.9	2.5	2.1	.0		29.9	
	11-21	6.7	4.2	.9	.7	4.3	4.8	1.1	1.9	.0		24.5	
	22+	1.0	.7	.2	.1	.9	1.2	.1	.3	.0		4.5	
	TOT %	15.0	10.9	6.2	2.4	10.4	9.8	4.0	4.3	.0	2.7	65.7	
	TOT OBS												792
	TOT PCT	19.0	15.6	9.5	5.2	17.0	17.1	6.2	6.9	.0	3.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	4.6	1.1	.6	6.9	12.0	17.7	2.3	.0	.0	.0	45.1	54.9	175
06&09	4.3	.0	1.2	5.0	13.7	6.8	2.5	.6	.0	.6	34.8	65.2	161
12&15	3.9	.0	2.6	3.9	16.4	6.6	1.3	.7	.7	1.3	37.5	62.5	152
18&21	3.4	1.7	1.7	13.7	18.8	8.5	2.6	2.6	.0	.0	53.0	47.0	117
TOT	25	4	9	42	90	62	13	5	1	3	256	351	605
PCT	4.1	.7	1.5	6.9	14.9	10.2	2.1	.8	.2	.5	42.0	58.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.8	2.3	.5	4.6	28.1	62.7	217
06&09	2.0	2.4	.0	2.0	26.3	67.3	205
12&15	1.6	2.4	2.0	3.3	23.3	67.3	245
18&21	.6	2.3	1.2	5.2	26.6	64.2	173
TOT	13	20	8	31	218	550	840
PCT	1.5	2.4	1.0	3.7	26.0	65.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	4.8	7.2	16.2	31.7	52.1	167
06&09	4.5	6.4	11.5	24.2	64.3	157
12&15	4.2	7.0	12.0	28.9	59.2	142
18&21	3.5	7.0	20.9	33.0	46.1	115
TOT	25	40	86	170	325	581
PCT	4.3	6.9	14.8	29.3	55.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.5	.0	.0	.0	.0	.0	2	.5
60/64	.0	.0	.0	.5	.2	.2	.0	.2	5	1.2
55/59	.0	.0	.9	.5	1.6	2.6	3.3	.9	42	9.8
50/54	.0	.0	.2	.7	2.3	9.6	15.6	14.0	182	42.4
45/49	.0	.0	.0	1.2	3.5	7.5	13.8	16.6	182	42.4
40/44	.0	.0	.0	.0	.2	.5	1.2	1.9	16	3.7
TOTAL	0	0	7	12	34	87	145	144	429	100.0
PCT	.0	.0	1.6	2.8	7.9	20.3	33.8	33.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.2	.0	.0	.0	.0	.0	.0	.3	.0	.0
	.5	.2	.0	.0	.0	.0	.0	.4	.0	.0
	2.5	2.0	.7	.0	.2	.8	1.3	2.1	.0	.2
	9.3	9.7	4.6	3.1	4.2	6.5	1.3	2.9	.0	.9
	5.4	8.6	4.3	1.9	10.4	8.3	2.0	.9	.0	.7
	.5	.5	.0	.5	.6	.9	.6	.2	.0	.0
	18.3	21.0	9.6	5.5	15.3	16.4	5.2	6.8	.0	1.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	74	68	60	52	45	40	39	52.1	248
06&09	61	60	59	50	45	41	33	50.5	226
12&15	62	61	56	49	43	40	32	49.2	267
18&21	57	56	54	49	45	41	37	48.6	190
TOT	74	61	58	50	44	40	32	50.2	931

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	9.6	9.6	26.0	27.9	26.9	80	104
06&09	.0	5.7	8.6	21.0	41.0	23.8	82	105
12&15	.0	1.9	7.7	16.8	36.8	36.8	85	155
18&21	.0	2.4	6.0	19.0	27.4	45.2	86	84
TOT	0	21	36	91	152	148	83	448

SEPTEMBER

PERIOD: (PRIMARY) 1939-1977
(OVER-ALL) 1865-1977

AREA 0032 CHRISTCHURCH
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	29 32	33 36	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
23/25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
14/16	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	1	.0	.2
11/13	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0	.0	5	.0	.8
9/10	.0	.0	.0	.0	.0	.5	.0	1.4	.5	.0	.0	.0	15	.0	2.3
7/8	.0	.0	.0	.0	.0	.2	.3	.8	.0	.0	.0	.0	8	.2	1.1
6	.0	.0	.0	.0	.0	.0	1.4	.8	.3	.0	.0	.0	16	.0	2.5
5	.0	.0	.0	.0	.2	.6	2.8	.6	.2	.0	.0	.0	28	.0	4.4
4	.0	.0	.0	.0	.0	.3	2.2	.5	.0	.0	.0	.0	19	.0	3.0
3	.0	.0	.0	.0	.3	3.1	2.0	.5	.2	.0	.0	.0	39	.5	5.6
2	.0	.0	.0	.0	1.1	4.2	3.1	.6	.0	.0	.0	.0	58	.6	8.4
1	.0	.0	.0	.0	2.8	4.4	2.5	.0	.0	.0	.0	.0	62	.0	9.6
0	.0	.0	.0	.0	4.4	5.9	3.3	.2	.0	.0	.0	.0	88	2.0	11.7
-1	.0	.0	.0	.0	3.6	5.0	.3	.2	.0	.0	.0	.0	58	.9	8.1
-2	.0	.0	.0	.3	4.5	3.3	.8	.0	.0	.0	.0	.0	57	.3	8.6
-3	.0	.0	.0	.3	3.4	2.3	.2	.0	.0	.0	.0	.0	40	.5	5.8
-4	.0	.0	.0	.3	4.5	2.5	.0	.0	.0	.0	.0	.0	47	.5	6.8
-5	.0	.0	.0	.8	2.5	1.1	.2	.0	.0	.0	.0	.0	29	.0	4.5
-6	.0	.0	.0	1.1	1.6	1.1	.0	.0	.0	.0	.0	.0	24	.3	3.4
-7/-8	.0	.0	.2	1.4	2.5	.8	.2	.0	.0	.0	.0	.0	32	.0	5.0
-9/-10	.0	.0	.2	.2	.6	.3	.0	.0	.0	.0	.0	.0	8	.0	1.2
-11/-13	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	4	.0	.6
-14/-16	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.2	.0
-17/-19	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.2
-20/-22	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	1		3		205		123		12		0		38		605
		1		32		228		35		1		2	643		
PCT	.2	.2	.5	5.0	31.9	35.5	19.1	5.4	1.9	.2	.0	.3	100.0	5.9	94.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.3	.0	.0	.0	.0	1.9
1-2	.4	4.0	2.7	.0	.0	.0	7.0
3-4	.0	2.8	3.5	.4	.0	.0	6.7
5-6	.0	.1	1.8	.5	.0	.0	2.4
7	.0	.1	1.2	.0	.0	.0	1.3
8-9	.0	.0	.0	.0	.1	.0	.1
10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.1	.0	.0	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	8.5	9.5	1.3	.1	.0	20.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.8	.0	.0	.0	.0	2.2
1-2	.4	4.0	1.3	.0	.0	.0	5.6
3-4	.0	.9	2.3	.0	.0	.0	3.2
5-6	.0	.2	1.9	.2	.0	.0	2.3
7	.0	.0	.4	.2	*	.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	*	.0	.0	.0	*
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	*	.0	.0	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.9	5.9	.6	*	.0	14.2

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.8	.0	.0	.0	.0	1.4
1-2	.2	4.4	.5	.0	.0	.0	5.1
3-4	.0	1.0	.8	.2	.0	.0	2.0
5-6	.0	.2	1.0	.0	.0	.0	1.2
7	.0	.0	.1	.0	.1	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.1	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.4	2.6	.4	.1	.0	10.3

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	.0	.0	.0	.0	.7
1-2	.0	1.2	.4	.0	.0	.0	1.5
3-4	.0	.4	.6	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.2	.2	.0	.0	.4
8-9	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.2	1.2	.4	.0	.0	3.8

PERIOD: (OVER-ALL) 1963-1977

SEPTEMBER

AREA 0032 CHRISTCHURCH 43.7S 173.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	1.4	.0	.0	.0	.0	2.3
1-2	.0	2.8	1.0	.0	.0	.0	3.7
3-4	.2	1.9	2.8	.0	.0	.0	4.9
5-6	.0	.2	2.8	.0	.0	.0	3.0
7	.0	.0	.5	1.0	.0	.0	1.5
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.1	.2	.0	.5
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	6.3	7.2	1.3	.2	.0	16.0

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.5	.0	.0	.0	.0	.7
1-2	.7	1.9	2.5	.0	.0	.0	5.1
3-4	.2	.5	3.8	.2	.0	.0	4.6
5-6	.0	.4	2.5	1.4	.2	.0	4.5
7	.0	.2	1.1	.3	.0	.0	1.6
8-9	.0	.0	.2	.5	.4	.0	1.1
10-11	.0	.0	.2	.2	.2	.0	.6
12	.0	.0	.4	.0	.0	.0	.4
13-16	.0	.0	.0	.4	.2	.0	.6
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	3.4	10.6	3.1	1.0	.0	19.2

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.8	.0	.0	.0	.0	.9
1-2	.3	2.0	.4	.0	.0	.0	2.6
3-4	.0	.8	1.1	.1	.0	.0	2.1
5-6	.0	.0	.3	.0	.1	.0	.5
7	.0	.0	.0	.1	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.6	1.8	.4	.1	.0	6.3

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.6	.0	.0	.0	.0	.7	
1-2	.1	1.2	.2	.0	.0	.0	1.5	
3-4	.0	.2	.9	*	.0	.0	1.1	
5-6	.0	.2	1.1	.2	.0	.0	1.6	
7	.0	.4	.4	*	.0	.0	.9	
8-9	.0	.0	.0	.0	*	.0	*	
10-11	.0	.0	*	.0	.0	.0	*	
12	.0	.0	.0	*	.0	.0	*	
13-16	.0	.0	.0	*	.0	.0	*	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	2.7	2.7	.4	*	.0	6.0	96.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.0	7.8	.0	.0	.0	.0	15.8	
1-2	2.3	21.4	8.7	.0	.0	.0	32.4	
3-4	.4	8.3	15.4	.9	.0	.0	25.0	
5-6	.0	1.2	11.2	2.3	.4	.0	15.0	
7	.0	.7	3.9	1.8	.2	.0	6.5	
8-9	.0	.0	.2	.7	.5	.0	1.4	
10-11	.0	.0	.7	.5	.4	.0	1.6	
12	.0	.0	.5	.4	.0	.0	.9	
13-16	.0	.0	.0	1.1	.2	.0	1.2	
17-19	.0	.2	.0	.0	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.6	39.6	40.5	7.6	1.6	.0	100.0	565

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	7.2	10.8	7.1	4.0	1.6	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	199	4
6-7	.0	.6	3.9	8.5	6.9	5.5	2.6	1.3	1.6	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	194	7
8-9	.0	.8	.8	3.1	4.3	.8	2.6	.6	.6	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	87	7
10-11	.0	1.4	1.0	1.4	1.6	.5	1.1	.3	.3	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	54	7
12-13	.0	.0	1.0	.6	.3	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	9
>13	.0	.0	.0	1.3	.8	.5	.0	.0	.3	.0	.2	.0	.0	.0	.3	.0	.0	.0	.0	22	11
INDET	2.9	2.3	1.3	.6	.6	.0	.2	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	51	3
TOTAL	21	77	116	141	116	55	48	14	21	7	4	0	0	0	2	0	0	0	0	622	6
PCT	3.4	12.4	18.6	22.7	18.6	8.8	7.7	2.3	3.4	1.1	.6	.0	.0	.0	.3	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	1.0	.5	.9	.0	.0	.0	.0	2.4	.5	.0	2.6	.5	1.7	1.3		91.0
NE	1.6	.6	.1	.0	.0	.0	.0	2.4	1.5	.0	5.7	.5	1.0	.3		88.7
E	2.9	1.3	3.3	.0	.0	.0	.0	7.5	1.7	.0	7.9	.0	1.3	.0		81.6
SE	7.2	1.6	4.8	.0	.0	.0	1.6	15.2	5.2	.0	.0	.0	1.6	.0		78.0
S	9.5	.8	3.0	.0	.0	.0	.0	13.4	3.4	.0	1.0	.4	1.4	.0		80.3
SW	7.7	2.4	.4	.0	.0	.0	.0	10.5	2.2	.0	1.4	.4	.4	.0		85.2
W	.0	2.3	4.0	.0	.0	.0	.0	6.3	4.0	.0	.0	.0	4.0	.0		85.8
NW	2.4	.0	.0	.0	.0	.0	.0	2.4	1.2	1.2	.0	.0	.0	.0		95.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	.0	.0	1.5	.0	.0	.0	.0	1.5	.0	.0	1.5	.0	.0	.0		97.1
TOT PCT	3.6	.9	1.5	.0	.0	.0	.1	6.1	1.9	.1	2.6	.3	1.1	.3		87.5
TOT OBS:	962															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	2.2	.4	1.3	.0	.0	.0	.0	4.0	2.2	.0	2.2	.4	2.2	.4		88.3
06&09	4.3	1.4	.7	.0	.0	.0	.0	6.5	.7	.4	3.6	.4	2.2	.0		86.3
12&15	4.3	1.5	2.4	.0	.0	.0	.3	8.6	2.4	.0	1.5	.3	.3	.3		86.5
18&21	2.0	.5	1.0	.0	.0	.0	.0	3.5	1.5	.0	3.0	.5	1.0	.5		89.9
TOT PCT	3.4	1.1	1.5	.0	.0	.0	.1	6.0	1.8	.1	2.5	.4	1.4	.3		87.5
TOT OBS:	1026															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)								HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.1	8.3	8.7	2.0	.4	.1		20.5	13.3	20.4	16.7	17.4	17.8	23.5	23.5	18.9	20.3
NE	1.0	9.3	9.1	1.9	.1	.0		20.4	12.4	17.7	38.9	23.9	31.6	21.7	12.9	16.5	8.7
E	.4	3.4	2.1	.1	.0	.0		6.0	9.7	5.5	11.1	8.8	5.3	6.8	3.9	4.0	.0
SE	.4	3.0	2.6	.3	.0	.0		6.3	11.0	5.3	6.9	8.6	2.8	7.2	7.5	4.9	3.3
S	.5	3.2	7.3	1.3	.5	.0		12.9	15.0	16.6	20.8	13.0	8.1	8.9	11.6	14.5	21.7
SW	.3	3.4	5.7	3.2	.9	.2		13.7	18.2	12.9	.0	15.1	10.6	12.4	17.3	13.9	27.2
W	.3	1.5	1.9	.8	.1	.0		4.5	14.3	2.9	.0	1.0	3.9	4.9	10.1	6.6	4.3
NW	.6	2.7	4.5	1.0	.1	.0		8.9	14.1	9.7	5.6	6.3	11.6	8.9	6.2	11.7	6.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.9							6.9	.0	9.0	.0	6.0	6.3	5.5	7.2	9.0	.0
TOT OBS	116	344	426	109	21	3	1019		12.8	212	18	184	80	238	97	167	23
TOT PCT	11.4	33.8	41.8	10.7	2.1	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)				
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21	
N	4.7	10.3	4.4	1.0	.2		20.5	13.3	20.1	17.5	23.5	20.0	
NE	3.7	12.0	4.5	.1	.0		20.4	12.4	19.3	26.2	19.2	15.5	
E	2.0	3.2	.8	.0	.0		6.0	9.7	6.0	7.8	6.0	3.6	
SE	1.7	3.5	.9	.1	.0		6.3	11.0	5.4	6.8	7.3	4.7	
S	1.6	6.5	4.0	.8	.0		12.9	15.0	17.0	11.6	9.7	15.4	
SW	1.3	5.2	4.9	1.8	.5		13.7	18.2	11.8	13.7	13.8	15.5	
W	.8	2.1	1.3	.3	.0		4.5	14.3	2.7	2.5	6.4	6.3	
NW	1.1	4.8	2.7	.3	.0		8.9	14.1	9.3	7.9	8.1	11.1	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	6.9						6.9	.0	8.3	6.1	6.0	7.9	
TOT OBS	243	484	239	46	7	1019		12.8	230	264	335	190	
TOT PCT	23.8	47.5	23.5	4.5	.7		100.0		100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	8.3	3.9	34.3	40.4	11.7	1.3	.0	12.2	100.0	230
06&09	6.1	1.9	32.6	46.2	11.4	1.1	.8	13.7	100.0	266
12&15	6.0	5.7	33.4	42.1	9.3	3.3	.3	13.1	100.0	335
18&21	7.9	6.8	35.3	36.8	11.1	2.1	.0	12.0	100.0	190
TOT	70	46	344	426	109	21	3	12.8		1019
PCT	6.9	4.5	33.8	41.8	10.7	2.1	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	7.6	3.8	7.6	2.9		4.0
NE	8.6	2.7	5.6	3.5		3.9
E	1.3	1.2	1.4	1.8		5.1
SE	1.2	.3	2.3	2.1		5.7
S	1.9	1.9	4.3	4.4		5.6
SW	2.8	1.9	4.3	4.4		5.3
W	1.0	.7	1.2	.9		4.7
NW	2.4	2.2	3.8	.7		4.4
VAR	.0	.0	.0	.0		.0
CALM	2.9	2.2	1.9	.8		3.4
TOT OBS	235	132	256	165	788	4.5
TOT PCT	29.8	16.8	32.5	20.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.3	.1	.0	.3	1.0	2.9	.8	.7	.5	.5	14.1	
NE	.3	.2	.3	.4	1.8	2.0	.1	.3	.7	.3	14.1	
E	.3	.0	.0	.1	.3	1.6	.3	.1	.1	.0	3.0	
SE	*	.1	.0	.3	.8	1.6	.4	.3	.0	.1	2.3	
S	.3	.1	.0	1.6	2.7	1.7	.7	.1	.1	.0	5.3	
SW	*	.0	.5	.9	2.2	2.7	.3	*	.5	.0	6.2	
W	.0	.0	.1	.1	.5	.3	.0	.0	.2	.1	2.5	
NW	.1	.0	.1	.4	1.0	.8	.2	.3	*	.1	6.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.3	.5	.9	.3	.0	.0	.3	5.6	
TOT OBS	11	4	8	35	84	115	24	14	18	11	464	788
TOT PCT	1.4	.5	1.0	4.4	10.7	14.6	3.0	1.8	2.3	1.4	58.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5
* OR >5000	4.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4
* OR >3500	6.8	9.2	9.2	9.2	9.2	9.2	9.2	9.2
* OR >2000	18.7	23.4	23.9	23.9	23.9	23.9	23.9	23.9
* OR >1000	26.7	33.7	34.5	34.5	34.5	34.5	34.5	34.5
* OR >600	29.3	37.7	38.5	38.8	38.8	38.8	38.8	38.8
* OR >300	30.0	38.6	39.6	39.9	39.9	39.9	39.9	39.9
* OR >150	30.1	39.1	40.1	40.3	40.3	40.3	40.3	40.3
* OR > 0	30.3	39.6	40.9	41.3	41.3	41.5	41.7	41.7
TOTAL	251	328	339	342	342	344	345	345

TOTAL NUMBER OF OBS: 828

PCT FREQ NH <5/8: 58.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
18.5	11.6	11.8	8.5	6.7	7.1	6.7	10.7	17.5	1.0	887

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.2	.2	.3	.0	.1	.1	.0	.0	.0	.0	.8	
	TOT %	.3	.2	.3	.0	.1	.1	.0	.0	.0	.0	.9	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	TOT %	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.4	
1<2	PCP	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.2	
	NO PCP	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.1	.1	.0	.1	.1	.0	.0	.0	.0	.4	
2<5	PCP	.0	.1	.1	.1	.3	.1	.0	.0	.0	.0	.7	
	NO PCP	.0	.2	.1	.2	.1	.3	.0	.0	.0	.0	.9	
	TOT %	.0	.3	.2	.4	.4	.4	.0	.0	.0	.0	1.7	
5<10	PCP	.2	.1	.2	.5	1.1	.6	.1	.1	.0	.1	3.1	
	NO PCP	2.7	3.3	1.0	.9	2.0	1.8	.5	1.4	.0	.5	14.0	
	TOT %	2.9	3.4	1.2	1.5	3.1	2.4	.7	1.5	.0	.6	17.2	
10+	PCP	.2	.3	.1	.3	.4	.5	.2	.1	.0	.0	2.1	
	NO PCP	16.7	16.0	4.4	4.4	8.8	9.6	3.7	7.2	.0	6.5	77.3	
	TOT %	16.9	16.3	4.5	4.7	9.3	10.1	3.9	7.3	.0	6.5	79.4	
	TOT OBS												961
	TOT PCT	20.1	20.6	6.2	6.5	12.9	13.2	4.6	8.8	.0	7.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.1	.0	.2	.0	.0	.0	.0	.0	.0		.3	
	11-21	.0	.1	.1	.0	.0	.1	.0	.0	.0		.3	
	22+	.0	.0	.0	.0	.1	*	.0	.0	.0		.1	
	TOT %	.3	.2	.3	.0	.1	.1	.0	.0	.0	.0	.9	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.3	.0	.0	.0	.0	.0	.0	.0		.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.4	
1<2	0-3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0		.1	
	TOT %	.0	.1	.1	.0	.1	.1	.0	.0	.0	.0	.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.1	.0	.0	.0	.0	.0	.0		.3	
	11-21	.0	.1	.1	.3	.3	.2	.1	.1	.0		1.0	
	22+	.0	.0	.0	.1	.1	.2	.0	.0	.0		.4	
	TOT %	.0	.3	.2	.4	.4	.4	.1	.1	.0	.0	1.8	
5<10	0-3	.1	.0	.1	.0	.0	.0	.0	.2	.0	.6	1.0	
	4-10	1.0	.6	.8	.5	.5	.5	.2	.4	.0		4.5	
	11-21	.8	2.0	.3	.8	1.9	1.1	.2	.7	.0		7.8	
	22+	1.0	.8	.0	.1	.7	.8	.3	.2	.0		3.9	
	TOT %	2.9	3.4	1.2	1.5	3.1	2.4	.7	1.5	.0	.6	17.2	
10+	0-3	.8	1.0	.2	.4	.4	.3	.3	.2	.0	6.5	10.1	
	4-10	6.8	7.2	2.4	2.5	2.8	2.9	1.4	2.3	.0		28.4	
	11-21	7.6	6.9	1.7	1.6	5.1	4.1	1.8	3.8	.0		32.7	
	22+	1.6	1.2	.1	.1	.9	2.8	.4	1.0	.0		8.1	
	TOT %	16.8	16.3	4.5	4.7	9.3	10.1	3.9	7.3	.0	6.5	79.3	
	TOT OBS												961
	TOT PCT	20.0	20.6	6.2	6.5	12.9	13.2	4.6	8.8	.0	7.1	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.0	1.0	1.0	6.0	7.0	17.5	3.0	2.0	3.5	1.5	43.5	56.5	200
06&09	2.2	.9	.4	4.4	11.9	14.2	2.7	2.7	.0	.9	40.3	59.7	226
12&15	.8	.0	2.0	3.5	9.0	7.8	4.3	1.6	3.5	.8	33.3	66.7	255
18&21	1.2	.0	.6	2.3	14.6	20.5	4.7	1.2	1.2	2.3	48.5	51.5	171
TOT	11	4	9	35	89	122	31	16	18	11	346	506	852
PCT	1.3	.5	1.1	4.1	10.4	14.3	3.6	1.9	2.1	1.3	40.6	59.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	.4	.4	.0	2.2	15.2	81.7	224
06&09	1.4	.4	1.1	1.8	19.4	75.9	278
12&15	.6	.0	.3	1.5	16.6	80.9	325
18&21	1.5	1.0	.0	1.5	22.2	73.7	198
TOT	10	4	4	18	186	803	1025
PCT	1.0	.4	.4	1.8	18.1	78.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.0	3.1	10.7	34.2	55.1	196
06&09	2.3	3.6	9.5	32.1	58.4	221
12&15	.8	2.9	7.4	27.6	65.0	243
18&21	1.2	1.8	4.8	44.0	51.2	168
TOT	11	24	68	279	481	828
PCT	1.3	2.9	8.2	33.7	58.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/69	.0	.0	.0	.2	.0	.0	.0	.0	1	.2
60/64	.0	.0	.0	.4	1.2	.6	.6	.0	14	2.9
55/59	.0	.0	.6	.6	1.4	4.7	7.6	4.9	97	19.9
50/54	.0	.0	.6	1.6	3.1	9.8	19.5	19.3	263	53.9
45/49	.0	.0	.2	.6	2.5	4.3	8.8	4.9	104	21.3
40/44	.0	.0	.0	.2	.0	.2	.6	.6	8	1.6
35/39	.0	.0	.0	.0	.0	.0	.2	.0	1	.2
TOTAL	0	0	7	18	40	96	182	145	488	100.0
PCT	.0	.0	1.4	3.7	8.2	19.7	37.3	29.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.1	.0	.0	.0	.0	.0	.0	.0	.0
.4	.6	.0	.0	.4	.1	.2	1.2	.0	.0
5.7	4.9	.7	.6	1.7	1.5	.8	2.8	.0	1.2
9.3	14.5	3.3	3.1	7.6	8.6	2.6	2.7	.0	2.0
2.2	2.7	.6	2.5	4.6	5.7	1.2	1.1	.0	.8
.0	.0	.0	.3	.3	.8	.3	.0	.0	.0
.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
17.9	22.8	4.6	6.5	14.6	16.6	5.1	7.8	.0	4.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	76	72	64	54	48	45	41	54.6	230
06&09	75	65	61	53	46	44	43	53.1	282
12&15	73	64	59	52	46	42	40	51.8	341
18&21	68	67	57	51	46	39	36	51.4	200
TOT	76	68	61	52	46	43	36	52.7	1053

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	8.6	8.6	25.9	37.0	19.8	80	81
06&09	.0	4.4	12.4	20.4	36.5	26.3	83	137
12&15	.0	4.2	8.5	16.9	34.7	35.7	84	213
18&21	.0	6.1	1.2	20.7	40.2	31.7	85	82
TOT	0	27	43	102	187	154	83	513

OCTOBER

PERIOD: (PRIMARY) 1966-1977
(OVER-ALL) 1868-1977

AREA 0032 CHRISTCHURCH
43.6S 173.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
23/25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
20/22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	2	.1	.1
17/19	.0	.0	.0	.0	.0	.1	.0	.1	.3	.0	4	.0	.5
14/16	.0	.0	.0	.0	.0	.0	.1	.5	.3	.0	7	.0	.9
11/13	.0	.0	.0	.0	.1	.4	.1	.7	.0	.0	10	.0	1.3
9/10	.0	.0	.0	.1	.1	.8	1.7	.4	.0	.0	24	.1	3.0
7/8	.0	.0	.0	.0	.5	.9	1.3	.0	.0	.0	21	.0	2.7
6	.0	.0	.0	.0	.4	1.0	.1	.0	.0	.0	12	.1	1.4
5	.0	.0	.0	.1	2.5	2.3	.3	.0	.0	.0	40	.0	5.2
4	.0	.0	.0	.3	3.1	1.3	.1	.0	.0	.0	37	.1	4.7
3	.0	.0	.3	.5	3.6	1.0	.0	.0	.0	.0	42	.0	5.5
2	.0	.0	.1	3.6	5.3	.9	.1	.0	.0	.0	78	.0	10.1
1	.0	.0	.7	2.9	5.6	.4	.0	.0	.0	.0	73	.4	9.1
0	.0	.0	1.2	7.7	6.5	.5	.0	.0	.0	.0	122	.5	15.3
-1	.0	.0	.7	3.4	2.6	.4	.0	.0	.0	.0	54	.4	6.6
-2	.0	.0	2.1	4.7	2.0	.0	.0	.0	.0	.0	67	.0	8.7
-3	.0	.1	1.7	4.2	.4	.0	.0	.0	.0	.0	49	.1	6.2
-4	.1	.0	2.0	3.0	.7	.0	.0	.0	.0	.0	44	.3	5.5
-5	.0	.1	1.8	1.6	.0	.0	.0	.0	.0	.0	27	.0	3.5
-6	.0	.1	.7	.5	.1	.0	.0	.0	.0	.0	11	.1	1.3
-7/-8	.0	.1	1.7	1.2	.1	.0	.0	.0	.0	.0	24	.1	3.0
-9/-10	.0	.7	.7	.5	.0	.0	.0	.0	.0	.0	14	.3	1.6
-11/-13	.1	.4	.0	.3	.0	.0	.0	.0	.0	.0	6	.0	.8
TOTAL	2	12	103	265	259	78	30	13	4	3	769	21	748
PCT	.3	1.6	13.4	34.5	33.7	10.1	3.9	1.7	.5	.4	100.0	2.7	97.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	2.9	.1	.0	.0	.0	3.8
1-2	.1	3.2	1.5	.0	.0	.0	4.9
3-4	.0	1.6	3.3	.0	.0	.0	4.9
5-6	.0	.4	1.8	.5	.1	.0	2.9
7	.0	.1	1.0	.5	.1	.0	1.8
8-9	.0	.0	.5	.7	.1	.0	1.2
10-11	.0	.1	.2	.2	.0	.1	.7
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	8.3	8.4	2.1	.5	.1	20.4

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	2.1	.3	.0	.0	.0	2.9
1-2	.4	3.3	2.2	.0	.0	.0	5.9
3-4	.0	2.1	3.1	.1	.0	.0	5.4
5-6	.0	.4	2.1	.5	.0	.0	3.1
7	.0	.1	.8	.4	.0	.0	1.4
8-9	.0	.0	.0	.3	*	.0	.3
10-11	.0	.0	*	.4	.1	.0	.5
12	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	8.0	8.6	1.9	.2	.0	19.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	2.1	.0	.0	.0	.0	2.3
1-2	.1	.6	.6	.0	.0	.0	1.3
3-4	.1	.8	.6	.0	.0	.0	1.6
5-6	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.1	.0	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	3.4	2.2	.0	.0	.0	6.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.8	.1	.0	.0	.0	1.4
1-2	.0	1.6	.8	.0	.0	.0	2.4
3-4	.0	.4	.9	.1	.0	.0	1.3
5-6	.0	.3	.5	.0	.0	.0	.7
7	.0	.0	.3	*	.0	.0	.3
8-9	.0	.0	*	.0	.0	.0	*
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	3.0	2.6	.2	.0	.0	6.9

PERIOD: (OVER-ALL) 1963-1977 OCTOBER AREA 0032 CHRISTCHURCH 43.6S 173.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.0	.3	.0	.0	.0	1.6
1-2	.1	1.2	1.4	.0	.0	.0	2.9
3-4	.0	.6	1.9	.2	.0	.0	2.7
5-6	.0	.1	2.7	.3	.0	.0	3.1
7	.0	.0	1.1	.3	.0	.0	1.5
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.2	.3	.2	.0	.6
12	.0	.0	.1	.0	.1	.0	.2
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.9	8.1	1.1	.5	.0	13.1

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	*	.6	.1	.0	.0	.0	.7
1-2	.2	1.7	.8	.0	.0	.0	2.7
3-4	.1	.9	2.1	.5	.0	.0	3.8
5-6	.0	.2	1.3	.7	.1	.0	2.3
7	.0	.0	.5	.9	.0	.1	1.6
8-9	.0	.0	.5	.5	.0	.0	1.1
10-11	.0	.0	.5	.3	.2	.0	1.0
12	.0	.0	.0	.1	*	.0	.2
13-16	.0	.0	.0	.0	.2	.1	.3
17-19	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.4	5.9	3.8	.5	.3	13.7

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.5	.0	.0	.0	.0	.6
1-2	.3	.5	.6	.0	.0	.0	1.4
3-4	.0	.4	1.0	.0	.0	.0	1.3
5-6	.0	.0	.3	.3	.0	.0	.6
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.1	.2	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	1.4	2.1	.5	.0	.0	4.4

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.8	.0	.0	.0	.0	1.1	
1-2	.1	1.3	1.0	.0	.0	.0	2.4	
3-4	.0	.7	1.1	.3	.0	.0	2.1	
5-6	.0	.0	1.4	.4	.0	.0	1.8	
7	.0	.0	.7	.3	.1	.0	1.2	
8-9	.0	.1	.2	.2	.0	.0	.5	
10-11	.0	*	*	*	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	2.9	4.5	1.2	.1	.0	9.2	92.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.3	10.9	.9	.0	.0	.0	22.1	
1-2	1.4	13.4	9.1	.0	.0	.0	23.9	
3-4	.4	7.4	14.0	1.3	.0	.0	23.1	
5-6	.0	1.3	10.3	2.8	.3	.0	14.6	
7	.0	.3	4.9	2.6	.3	.1	8.1	
8-9	.0	.1	1.4	1.7	.1	.0	3.3	
10-11	.0	.1	1.0	1.4	.5	.1	3.2	
12	.0	.0	.1	.3	.1	.0	.5	
13-16	.0	.0	.1	.1	.3	.1	.6	
17-19	.0	.0	.1	.1	.3	.0	.5	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								779
TOT PCT	12.1	33.5	42.0	10.9	1.8	.4	100.0	

PERIOD: (OVER-ALL) 1951-1977 TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	0.6	9.9	8.0	3.6	1.8	1.7	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	282	4
6-7	.0	.8	5.4	7.2	6.0	3.7	2.6	.6	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	224	6
8-9	.0	.7	3.1	3.2	2.4	1.7	2.4	.7	1.6	.5	.4	.0	.2	.0	.0	.0	.0	.0	.0	141	8
10-11	.0	1.8	.6	.5	1.2	.6	.5	.5	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	96	7
12-13	.0	.0	1.6	.4	.5	.1	.6	.2	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	55	7
>13	.0	.0	.0	.7	.6	.6	.5	.1	.2	.2	.2	.1	.1	.0	.0	.0	.0	.0	.0	29	10
INDET	5.3	.4	.6	.8	.7	.4	.7	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	75	3
TOTAL	94	86	177	174	125	74	75	23	26	9	7	2	3	0	0	0	0	0	0	835	6
PCT	6.9	10.3	21.2	20.8	15.0	8.9	9.0	2.8	3.1	1.1	.8	.2	.4	.0	.0	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	.8	.0	2.1	.0	.0	.0	.0	2.9	2.3	.0	1.8	.0	.6		.0	92.4
NE	1.6	.5	1.9	.0	.0	.0	.0	3.9	1.4	.5	1.7	.0	2.3		.0	90.1
E	1.7	.0	.6	.0	.0	.0	.0	2.3	3.4	.0	1.1	.0	1.1		.0	92.0
SE	3.4	1.4	11.9	.0	.0	.0	.0	16.7	4.8	1.4	2.4	.0	.0		.0	76.1
S	8.0	1.3	4.0	.0	.0	.0	.0	13.3	6.2	.0	7.2	.0	.0		.0	73.3
SW	6.8	2.2	2.9	.0	.0	.0	.0	11.8	3.0	.7	1.4	.0	.0		.7	82.3
W	1.8	.0	1.8	.0	.0	.0	.0	3.7	1.4	.0	1.8	.0	.0		.0	93.2
NW	2.2	.0	1.0	.0	.0	.0	.0	3.2	.0	1.0	1.2	.0	1.0		.0	93.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	2.3	.0	.0	.0	.0	2.3	.0	.0	4.5	.0	2.3		.0	90.9
TOT PCT	3.3	.7	2.9	.0	.0	.0	.0	6.9	2.7	.4	2.6	.0	.9	.1		86.6
TOT OBS:	1035															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA				
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	1.7	.8	1.7	.0	.0	.0	.0	4.2	3.4	.0	3.4	.0	.4		.4	88.2
06&09	1.3	1.0	2.0	.0	.0	.0	.0	4.4	1.7	.3	2.4	.0	1.7		.0	89.6
12&15	5.8	.6	2.6	.0	.0	.0	.0	8.9	2.6	1.2	2.0	.0	.6		.0	85.0
18&21	4.1	.5	5.5	.0	.0	.0	.0	10.1	2.8	.5	2.8	.0	.5		.0	83.5
TOT PCT	3.4	.7	2.8	.0	.0	.0	.0	6.9	2.5	.5	2.5	.0	.8		.1	86.6
TOT OBS:	1099															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.9	5.9	7.1	1.4	.1	.0		15.4	12.4	13.7	11.6	15.7	12.7	16.0	16.0	19.3	12.5
NE	1.3	9.1	9.2	1.1	.3	.0		20.9	11.9	19.5	32.3	27.1	24.9	18.4	15.9	16.7	14.8
E	.6	5.1	2.0	.7	.0	.0		8.4	9.9	10.4	22.0	6.9	13.8	8.5	2.4	6.1	5.1
SE	.5	4.2	2.4	.3	.0	.0		7.5	10.3	7.1	12.2	10.0	5.7	6.7	8.6	6.3	6.5
S	.1	6.6	6.5	2.3	.4	.0		16.0	14.1	16.6	9.8	14.9	15.3	16.3	17.5	16.0	18.5
SW	.3	9.9	5.5	2.7	.6	.0		12.9	16.1	14.0	4.9	11.3	8.3	11.4	19.0	11.6	26.9
W	.3	2.6	2.0	.3	.0	.0		5.2	11.1	6.1	2.4	2.7	3.8	5.9	4.1	8.1	6.5
NW	.3	4.5	3.6	1.3	.2	.2		9.4	14.0	6.7	4.9	9.3	10.2	13.1	9.0	9.6	6.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.3							4.3	.0	5.9	.0	2.1	3.4	3.8	7.5	4.4	3.7
TOT OBS	102	493	444	118	17	2	1176		12.2	219	41	188	118	239	134	183	54
TOT PCT	8.7	41.9	37.8	10.0	1.4	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	4.0	7.3	3.4	.6	.0		15.4	12.4	13.4	14.5	16.0	17.7
NE	4.5	12.4	3.6	.4	.0		20.9	11.9	21.5	27.0	17.5	17.8
E	2.8	4.4	1.1	.0	.0		8.4	9.9	12.2	9.6	6.3	5.9
SE	2.3	4.2	.9	.2	.0		7.5	10.3	7.9	8.3	7.4	6.2
S	2.1	8.9	4.0	.9	.1		16.0	14.1	15.5	15.0	16.8	16.6
SW	1.8	4.9	4.8	1.1	.3		12.9	16.1	12.6	10.1	14.1	15.1
W	1.3	3.0	.8	.2	.0		5.2	11.1	5.5	3.1	5.2	7.6
NW	2.5	3.8	2.4	.4	.3		9.4	14.0	6.4	9.6	11.6	8.9
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.3						4.3	.0	5.0	2.6	5.1	4.2
TOT OBS	300	576	247	44	9	1176		12.2	260	306	373	237
TOT PCT	25.5	49.0	21.0	3.7	.8		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	5.0	3.1	39.6	39.6	10.8	1.9	.0	12.4	100.0	260
06&09	2.6	3.9	39.9	40.8	10.5	2.3	.0	12.9	100.0	306
12&15	5.1	4.0	44.0	35.1	10.5	1.1	.3	12.0	100.0	373
18&21	4.2	7.2	43.9	35.9	8.0	.4	.4	11.4	100.0	237
TOT	50	92	493	444	118	17	2	12.2		1176
PCT	4.3	4.4	41.9	37.8	10.0	1.4	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.1	3.3	5.7	2.6		4.2
NE	6.3	4.0	6.6	4.4		4.5
E	2.0	1.4	2.9	2.6		5.2
SE	.7	.9	1.6	3.0		6.1
S	1.2	1.2	6.6	5.8		6.3
SW	2.1	2.1	4.2	5.0		5.7
W	2.2	.5	1.2	1.0		3.9
NW	4.4	1.2	2.9	1.1		3.7
VAR	.0	.0	.0	.0		.0
CALM	1.7	.5	1.1	.9		3.7
TOT OBS	205	121	263	212	801	4.9
TOT PCT	25.6	15.1	32.8	26.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	.0	.0	.5	1.7	1.6	.7	.1	.4	.6	10.9	
NE	.3	.0	.0	1.5	3.0	1.9	.7	.1	.5	.4	12.7	
E	.1	.0	.0	.4	1.0	1.7	.7	.1	.1	.1	4.6	
SE	*	.0	*	1.0	1.5	.8	.2	.3	.0	.0	2.2	
S	.3	.2	.2	2.0	3.4	2.4	1.3	.1	.1	.0	4.9	
SW	.1	.2	.2	1.8	3.1	2.2	.3	*	.1	.0	5.3	
W	.1	.0	.0	.2	.3	.5	.4	.1	.1	.0	3.1	
NW	*	.0	.0	.6	.9	.5	.4	.2	*	.4	6.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.0	.0	.2	.6	.5	.1	.1	.0	.0	2.5	
TOT OBS	11	3	3	67	124	97	40	9	11	13	423	801
TOT PCT	1.4	.4	.4	8.4	15.5	12.1	5.0	1.1	1.4	1.6	52.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	2.2	2.7	2.9	2.9	2.9	2.9	2.9	2.9
* OR >5000	3.2	3.9	4.1	4.1	4.1	4.1	4.1	4.1
* OR >3500	7.5	8.8	9.1	9.1	9.1	9.2	9.2	9.2
* OR >2000	18.0	21.6	22.2	22.2	22.2	22.3	22.3	22.3
* OR >1000	30.2	36.7	37.6	37.6	37.6	37.8	37.8	37.8
* OR >600	34.8	43.2	45.4	45.9	45.9	46.0	46.0	46.0
* OR >300	34.9	43.5	45.8	46.2	46.2	46.4	46.4	46.4
* OR >150	35.1	43.7	46.0	46.5	46.5	46.6	46.6	46.6
* OR > 0	35.2	44.3	46.8	47.3	47.3	47.4	48.0	48.0
TOTAL	295	371	392	396	396	397	402	402

TOTAL NUMBER OF OBS: 837 PCT FREQ NH <5/8: 52.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
11.2	13.2	12.4	8.8	5.6	7.4	7.7	10.0	22.4	1.3	894

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.3	
<1/2	NO PCP	*	.1	.0	.1	.6	.1	.0	.0	.0	.1	1.2	
	TOT %	.1	.1	.0	.1	.6	.3	.0	.0	.0	.1	1.5	
	PCP	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.3	
1/2<1	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.4	
	PCP	.0	.0	*	.3	.1	.1	.0	.0	.0	.0	.6	
1<2	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	*	.3	.1	.2	.0	.0	.0	.0	.7	
	PCP	*	.2	.0	.1	.1	.8	.0	.0	.0	.0	1.3	
2<5	NO PCP	.1	.0	.1	.1	.4	.1	.0	.0	.0	.1	.9	
	TOT %	.1	.2	.1	.2	.5	.9	.0	.0	.0	.1	2.1	
	PCP	.1	.4	.1	.5	1.1	.2	.2	.1	.0	.1	2.8	
5<10	NO PCP	1.7	2.8	1.6	1.4	2.9	2.0	1.3	2.0	.0	.5	16.2	
	TOT %	1.8	3.1	1.8	2.0	4.0	2.2	1.5	2.1	.0	.6	19.0	
	PCP	.2	.2	.0	.2	.5	.3	.0	.1	.0	.0	1.6	
10+	NO PCP	13.5	17.1	6.5	4.2	9.1	9.6	3.8	7.5	.0	3.5	74.8	
	TOT %	13.8	17.3	6.5	4.4	9.6	9.9	3.8	7.6	.0	3.5	76.4	
	TOT OBS												1094
	TOT PCT	15.8	20.8	8.4	7.1	15.1	13.5	5.2	9.8	.0	4.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.3	
<1/2	4-10	.1	*	.0	*	.5	.1	.0	*	.0		.9	
	11-21	.0	.1	.0	.0	.0	.1	.0	.0	.0		.2	
	22+	.1	.0	.0	.0	.0	.1	.0	.0	.0		.2	
	TOT %	.2	.1	.0	.1	.6	.3	.0	*	.0	.1	1.5	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.0	.0	.0	.3	.0	.0	.1	.0		.4	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.0	.0	.4	.0	.0	.1	.0	.0	.5	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.0	.1	.1	.1	.0	.0	.0		.3	
	11-21	.0	*	.1	.3	.1	.2	.0	.0	.0		.8	
	22+	.0	.0	.0	.0	.1	.1	.0	.0	.0		.2	
	TOT %	.0	*	.1	.4	.3	.4	.0	.0	.0	.0	1.2	
	0-3	*	.0	.0	.0	.0	.1	.0	*	.0	.1	.3	
2<5	4-10	.0	.3	.0	.0	.2	.3	.0	.1	.0		.9	
	11-21	.1	.1	.1	.2	.3	.3	.0	.0	.0		1.0	
	22+	.1	*	.0	.0	.1	.3	.0	.0	.0		.6	
	TOT %	.3	.4	.1	.2	.5	1.0	.0	.1	.0	.1	2.8	
	0-3	.2	.3	.0	.3	.0	.1	*	.2	.0	.6	1.7	
5<10	4-10	.7	1.5	.7	.8	1.2	.4	.8	.9	.0		7.0	
	11-21	.7	1.1	.5	.7	2.1	1.0	.5	.6	.0		7.2	
	22+	.1	.2	.5	.2	.7	.6	.1	.3	.0		2.8	
	TOT %	1.7	3.1	1.7	1.9	4.0	2.2	1.4	2.0	.0	.6	18.7	
	0-3	.8	1.0	.7	.1	.0	.2	.2	.1	.0	3.4	6.5	
10+	4-10	5.1	7.0	4.2	2.8	3.9	3.3	1.6	3.3	.0		31.4	
	11-21	6.7	7.8	1.3	1.3	4.1	4.2	1.6	2.8	.0		29.7	
	22+	1.0	1.3	.3	.1	1.5	2.0	.3	1.3	.0		7.7	
	TOT %	13.6	17.1	6.4	4.4	9.5	9.7	3.7	7.5	.0	3.4	75.3	
	TOT OBS												1049
	TOT PCT	15.8	20.8	8.3	7.1	15.3	13.5	5.1	9.8	.0	4.2	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET,NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.9	.5	.9	5.2	13.2	17.0	4.7	.9	.9	1.9	47.2	52.8	212
06&09	.0	.4	.4	6.6	15.4	14.5	5.7	3.1	3.5	1.8	51.3	48.7	228
12&15	2.4	.4	.0	7.7	14.6	7.7	5.3	.4	.4	1.2	40.1	59.9	247
18&21	1.7	.0	.0	13.6	17.0	12.5	4.0	.6	.0	1.1	50.6	49.4	176
TOT	13	3	3	69	129	110	43	11	11	13	405	458	863
PCT	1.5	.3	.3	8.0	14.9	12.7	5.0	1.3	1.3	1.5	46.9	53.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.7	.4	.4	3.7	17.0	76.8	241
06&09	.7	.3	1.7	.7	20.0	76.7	300
12&15	1.4	.3	.9	3.7	18.2	75.6	352
18&21	2.3	.9	1.8	2.7	21.7	70.6	221
TOT	16	5	13	30	213	837	1114
PCT	1.4	.4	1.2	2.7	19.1	75.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET,NH >4/8),BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.4	2.4	9.6	38.0	52.4	208
06&09	.0	.9	7.6	44.6	47.8	224
12&15	2.6	3.5	13.1	29.7	57.2	229
18&21	1.7	1.7	16.5	34.1	49.4	176
TOT	12	18	96	307	434	837
PCT	1.4	2.2	11.5	36.7	51.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
65/69	.1	.1	.4	.6	.7	.1	.6	.1	20	2.9
60/64	.0	.1	.0	1.0	2.5	3.3	3.0	2.2	84	12.1
55/59	.0	.1	1.0	.4	4.0	7.7	12.6	10.5	252	36.4
50/54	.0	.1	.6	.9	5.1	6.8	12.6	11.4	259	37.4
45/49	.0	.0	.0	.6	1.4	2.3	2.9	3.3	73	10.5
40/44	.0	.0	.0	.0	.0	.1	.0	.3	3	.4
TOTAL	1	4	15	24	99	141	219	193	692	100.0
PCT	.1	.6	2.2	3.5	13.7	20.4	31.6	27.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
.3	.3	.3	.0	.1	.3	.4	1.2	.0	.0
3.5	2.6	.3	.0	.4	1.0	.7	3.2	.0	.4
7.6	10.5	3.0	2.8	3.3	2.6	1.7	3.1	.0	1.7
4.2	6.7	3.2	3.8	8.7	6.5	1.6	1.8	.0	1.0
.6	.5	.5	1.5	3.2	2.7	.9	.2	.0	.4
.0	.0	.0	.0	.1	.3	.0	.0	.0	.0
16.2	20.6	7.4	8.1	15.8	13.5	5.2	9.6	.0	3.6

TABLE 15

MEANS,EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	73	70	66	56	49	46	45	56.8	263
06&09	71	69	64	55	48	44	44	55.4	319
12&15	73	68	63	54	47	45	43	54.4	385
18&21	72	66	62	54	47	45	44	54.0	248
TOT	73	69	64	55	48	45	43	55.1	1215

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.8	12.6	15.0	19.7	31.5	20.5	77	127
06&09	.0	5.3	10.5	22.6	34.7	26.8	82	190
12&15	.0	5.4	14.8	18.3	27.6	33.9	82	257
18&21	.0	7.1	14.2	21.9	31.6	25.2	81	155
TOT	1	51	99	149	226	203	81	729

PERIOD: (PRIMARY) 1956-1977
(OVER-ALL) 1865-1977

AREA 0032 CHRISTCHURCH
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.0	.2	2	.0	.2
17/19	.0	.0	.0	.0	.0	.0	.0	.3	.0	4	.0	.5
14/16	.0	.0	.0	.0	.0	.0	.1	.4	.0	4	.0	.5
11/13	.0	.0	.0	.0	.1	.2	.9	.4	.0	13	.6	1.6
9/10	.0	.0	.0	.0	.6	1.2	1.5	.0	.0	27	.0	3.3
7/8	.0	.0	.0	.2	.7	1.2	.5	.0	.0	22	.0	2.7
6	.0	.0	.2	.6	1.8	1.2	.1	.0	.0	33	.0	4.0
5	.0	.0	.2	1.1	3.0	1.7	.0	.0	.0	50	.1	6.0
4	.0	.1	.4	1.3	4.5	1.6	.1	.0	.0	66	.2	7.8
3	.0	.1	.7	3.2	2.3	.5	.0	.0	.0	56	.0	6.8
2	.0	.2	1.0	4.1	3.3	.2	.0	.0	.0	73	.2	8.6
1	.0	.4	1.8	5.1	3.5	.4	.0	.0	.0	92	.6	10.6
0	.0	.7	2.9	4.6	2.4	.0	.0	.0	.0	88	.6	10.1
-1	.0	.2	3.4	4.0	1.6	.0	.0	.0	.0	76	.2	9.0
-2	.0	1.0	3.2	3.6	.2	.0	.0	.0	.0	66	.1	7.9
-3	.0	.4	2.7	1.7	.0	.0	.0	.0	.0	39	.2	4.5
-4	.0	.6	1.8	1.6	.0	.1	.0	.0	.0	34	.1	4.0
-5	.0	.7	2.9	.6	.1	.0	.0	.0	.0	36	.1	4.3
-6	.1	.4	1.1	.0	.0	.0	.0	.0	.0	13	.0	1.6
-7/-8	.4	.9	1.0	.1	.0	.0	.0	.0	.0	19	.2	2.1
-9/-10	.1	.5	.1	.1	.0	.0	.0	.0	.0	7	.0	.9
-11/-13	.0	.2	.0	.0	.0	.0	.0	.0	.0	2	.0	.2
TOTAL	5	53	193	264	200	69	26	10	2	822	24	798
PCT	.6	6.4	23.5	32.1	24.3	8.4	3.2	1.2	.2	100.0	2.9	97.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	2.3	.4	.0	.0	.0	3.4
1-2	.5	2.7	1.9	.0	.0	.0	5.1
3-4	.1	.8	2.9	.1	.0	.0	4.0
5-6	.0	.1	1.2	.3	.0	.0	1.6
7	.0	.1	.7	.6	.0	.0	1.4
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.1	.0	.1
12	.0	.0	.1	.1	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.1	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	6.0	7.6	1.2	.1	.0	16.3

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	1.9	.4	.0	.0	.0	3.3
1-2	*	4.3	2.9	.0	.0	.0	7.3
3-4	.0	2.4	3.8	.3	.0	.0	6.5
5-6	.0	.5	2.0	.7	.0	.0	3.3
7	.0	.1	.7	.3	.0	.0	1.2
8-9	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.1	.0	*	.0	.2
12	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	9.3	10.5	1.3	.3	.0	22.4

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.3	.0	.0	.0	.0	1.5
1-2	.4	2.2	.7	.0	.0	.0	3.3
3-4	.0	2.2	.7	.1	.0	.0	3.0
5-6	.0	.0	.4	.1	.0	.0	.5
7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.7	1.9	.2	.0	.0	8.5

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	1.3	.2	.0	.0	.0	1.6
1-2	.0	1.6	.5	.0	.0	.0	2.0
3-4	.0	.5	.7	.1	.0	.0	1.4
5-6	.0	.1	1.1	*	.0	.0	1.3
7	.0	.0	.3	*	.0	.0	.3
8-9	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.5	3.0	.2	.0	.0	6.8

PERIOD: (OVER-ALL) 1963-1979

NOVEMBER

TABLE 18 (CONT)

AREA 0032 CHRISTCHURCH 43.7S 172.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.7	.0	.0	.0	1.3
1-2	.0	2.5	.9	.0	.0	.0	3.4
3-4	.0	2.0	2.0	.1	.0	.0	4.2
5-6	.0	.4	2.4	.1	.0	.0	2.9
7	.0	.3	.6	.2	.0	.0	1.2
8-9	.0	.0	.4	.6	.0	.0	1.0
10-11	.0	.0	.0	.2	.1	.0	.4
12	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.1	.0	.0	.1
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.8	7.0	1.7	.2	.0	14.7

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	.2	.0	.0	.0	1.0
1-2	.0	1.7	1.2	.0	.0	.0	2.8
3-4	.0	1.1	1.7	.4	.0	.0	3.2
5-6	.1	.1	.7	.4	.1	.0	1.6
7	.0	.0	1.4	.7	.1	.0	2.2
8-9	.0	.0	.3	.4	.0	.0	.7
10-11	.0	.0	.1	.3	.0	.0	.4
12	.0	.0	.1	.0	.0	.0	.1
13-16	.0	.0	.0	.1	*	.0	.2
17-19	.0	.0	.1	.0	.1	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.3	.1	.1	.0	.5
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.5	6.2	2.6	.6	.0	13.1

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.8	.0	.0	.0	.0	.9
1-2	.1	.5	.2	.0	.0	.0	.8
3-4	.0	.6	.9	.1	.0	.0	1.6
5-6	.0	.1	.3	.1	.0	.0	.5
7	.0	.1	.2	.0	.0	.0	.4
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.1	1.4	.4	.0	.0	4.4

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.8	.0	.0	.0	.0	1.0	
1-2	.0	1.5	.5	.0	.0	.0	2.1	
3-4	.0	.4	1.6	.0	.0	.0	2.0	
5-6	.0	.3	.9	.7	.1	.0	2.0	
7	.0	.0	.4	.3	.0	.1	.9	
8-9	.0	.0	.1	.4	.0	.0	.5	
10-11	.0	.1	.0	.1	.0	.1	.4	
12	.0	.0	.0	.1	.0	.0	.1	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.1	.0	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	3.3	3.6	1.7	.1	.3	9.2	95.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.5	9.5	1.9	.0	.0	.0	18.8	
1-2	1.1	16.9	8.8	.0	.0	.0	26.7	
3-4	.1	10.0	14.4	1.4	.0	.0	25.9	
5-6	.1	1.8	9.1	2.4	.3	.0	13.7	
7	.0	.7	4.3	2.2	.1	.1	7.5	
8-9	.0	.0	1.8	1.6	.0	.0	3.4	
10-11	.1	.1	.3	.7	.3	.1	1.6	
12	.0	.0	.3	.4	.0	.0	.7	
13-16	.0	.0	.0	.1	.4	.0	.5	
17-19	.0	.1	.1	.0	.1	.0	.4	
20-22	.0	.0	.0	.1	.0	.0	.1	
23-25	.0	.0	.3	.1	.1	.0	.5	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.1	.0	.0	.1	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.9	39.0	41.2	9.2	1.4	.3	100.0	738

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	5.2	10.5	7.7	5.3	1.6	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	282	4
6-7	.0	.6	7.8	8.5	8.7	3.7	3.0	1.0	1.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	295	6
8-9	.0	.7	3.4	2.5	3.6	1.7	1.7	.2	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	123	6
10-11	.0	1.6	.7	1.6	1.2	.7	.1	.0	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	54	6
12-13	.0	.0	2.3	1.1	.5	.2	.2	.0	.0	.1	.0	.5	.0	.0	.0	.0	.0	.0	.0	43	7
>13	.0	.0	.0	.8	.7	.2	.0	.0	.0	.1	.2	.2	.1	.1	.0	.0	.0	.0	.0	22	12
INDET	2.0	.1	1.0	.5	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	3
TOTAL	22	68	215	189	169	70	46	12	22	3	4	7	1	1	0	0	0	0	0	831	6
PCT	2.6	8.2	25.9	22.7	20.3	8.4	5.5	1.4	2.6	.4	.5	.8	.1	.1	.0	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
N	1.9	.0	1.2	.0	.0	.0	.0	3.1	1.2	.7	4.6	.0	1.7		.0	88.8
NE	1.1	.1	1.9	.0	.0	.0	.0	2.9	.8	.0	4.6	.4	3.8		.0	87.5
E	3.2	1.7	2.7	.0	.0	.0	.0	7.0	1.0	.0	2.5	1.0	3.7		.0	84.8
SE	1.2	1.8	3.0	.0	.0	.0	.0	6.0	1.2	.0	5.4	.0	.6		.0	86.8
S	3.9	.7	4.6	.0	.0	.0	.0	9.2	3.1	.0	5.9	.0	1.3		.0	80.5
SW	3.4	1.4	3.6	.0	.0	.0	.0	7.6	4.4	.0	1.4	.0	1.0		.8	84.9
W	2.9	4.3	.0	.0	.0	.0	.0	7.2	.0	.0	2.9	.0	2.9		.0	87.0
NW	.0	1.9	.5	.0	.0	.0	.0	2.4	.0	1.9	.9	.0	.0		.0	94.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.0	5.4		.0	92.9
TOT PCT	2.1	.9	2.4	.0	.0	.0	.0	5.1	1.4	.2	3.9	.2	2.4		.1	86.5
TOT OBS:	1054															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG SNOW	NO SIG WEA
00&03	2.0	.3	2.4	.0	.0	.0	.0	4.4	.7	.0	3.7	1.0	3.4		.0	86.8
06&09	3.7	.7	1.8	.0	.0	.0	.0	6.3	.7	.0	3.7	.0	2.6		.0	86.7
12&15	2.0	1.1	3.1	.0	.0	.0	.0	5.9	2.2	.3	4.2	.0	1.7		.3	85.4
18&21	1.0	2.1	2.6	.0	.0	.0	.0	5.7	3.6	.5	3.1	.0	1.5		.0	85.6
TOT PCT	2.2	1.0	2.5	.0	.0	.0	.0	5.6	1.7	.2	3.8	.3	2.3		.1	86.1
TOT OBS:	1117															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)							
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	1.0	4.8	6.4	1.6	.1	.1		14.0	13.4	12.5	17.0	8.2	16.2	15.3	17.3	16.8	12.0
NE	.8	12.0	11.3	2.2	*	.1		26.4	12.2	26.5	36.5	30.4	26.6	24.5	24.2	25.0	18.8
E	.9	5.6	2.8	.1	.0	.0		9.5	9.1	12.2	7.5	14.2	11.9	9.0	3.7	5.1	3.6
SE	.5	5.0	2.5	.2	.0	.0		8.3	9.3	9.2	9.0	10.2	8.3	9.1	6.1	4.8	6.9
S	.4	4.4	7.4	1.6	.3	.0		16.2	13.4	14.5	16.5	19.3	15.5	15.2	17.1	16.0	17.7
SW	.6	3.4	5.5	2.3	.3	.0		12.2	15.1	14.2	5.5	8.5	7.0	8.1	17.9	15.6	24.5
W	*	1.5	1.3	.3	.1	.0		3.3	13.5	3.4	.0	2.8	4.3	3.7	1.6	4.3	5.2
NW	.2	1.5	2.2	.9	.2	.0		4.9	15.5	3.9	5.0	2.3	7.4	8.3	4.1	3.2	3.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.4							5.4	.0	3.5	2.0	4.0	2.7	6.9	8.1	9.2	4.2
TOT OBS	113	464	459	106	13	2	1155		11.9	259	50	176	111	248	123	141	48
TOT PCT	9.8	40.2	39.4	9.2	1.1	.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.1	6.6	3.8	.5	.1		14.0	13.4	13.2	11.3	16.0	15.6
NE	6.1	14.5	5.1	.6	.1		26.4	12.2	28.2	28.9	24.4	23.4
E	3.6	4.8	1.0	.0	.0		9.5	9.1	11.4	13.3	7.2	4.8
SE	3.4	4.2	.7	*	.0		8.3	9.3	9.2	9.5	8.1	5.3
S	3.1	8.1	4.2	.7	.0		16.2	13.4	14.9	17.9	15.8	16.4
SW	2.3	5.2	3.8	.9	.0		12.2	15.1	13.0	7.9	11.3	18.9
W	.8	1.4	.8	.2	.1		3.3	13.5	2.8	3.4	3.0	4.5
NW	1.0	1.6	1.7	.5	.0		4.9	15.5	4.1	4.3	6.9	3.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.4						5.4	.0	3.2	3.5	7.3	7.9
TOT OBS	331	536	245	40	3	1155		11.9	308	287	371	189
TOT PCT	28.7	46.4	21.2	3.5	.3		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00603	3.2	2.3	39.9	45.8	8.1	.3	.3	12.2	100.0	308
06609	3.5	4.9	38.7	40.8	10.5	1.4	.3	12.5	100.0	287
12615	7.3	4.9	41.2	36.7	9.2	.8	.0	11.5	100.0	371
18621	7.9	6.3	40.7	33.3	9.0	2.6	.0	11.6	100.0	189
TOT	42	51	464	457	106	13	2	11.9		1155
PCT	5.4	4.4	40.2	39.6	9.2	1.1	.2		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	4.4	2.2	5.0	2.4		4.6
NE	10.2	3.8	7.2	6.6		4.4
E	3.6	.6	2.7	2.3		4.5
SE	1.6	.8	1.6	3.1		5.5
S	2.2	1.8	5.1	7.6		6.0
SW	2.7	1.4	3.6	4.9		5.4
W	1.2	.5	.6	.7		4.2
NW	1.7	.7	1.9	.8		4.5
VAR	.0	.0	.0	.0		.0
CALM	1.3	.6	3.0	.4		5.0
TOT OBS	241	103	256	238	838	4.9
TOT PCT	28.8	12.3	30.5	28.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.1	.1	.2	.4	1.9	1.5	.7	.2	.1	.4	8.4	
NE	.5	.0	.2	2.1	2.3	3.6	.9	.3	.4	.9	16.6	
E	.1	.0	.3	.4	1.0	1.6	.2	.0	.0	.1	5.3	
SE	.1	*	.1	.7	1.1	1.6	.1	.0	.0	.1	3.3	
S	.5	.1	.7	1.8	2.9	3.9	.7	.2	.1	.4	5.4	
SW	*	.1	.2	1.9	1.7	2.1	.4	.1	.4	.0	5.6	
W	.1	.1	.0	.0	.4	.6	.0	.0	.0	.0	1.8	
NW	.0	.0	*	.1	.6	.8	*	.0	.0	*	3.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	1.2	1.8	.1	.0	.0	.1	2.3	
TOT OBS	13	4	14	52	109	146	26	7	8	17	436	838
TOT PCT	1.6	.5	1.7	6.9	13.0	17.4	3.1	.8	1.0	2.0	52.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) = OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >A500	2.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0
= OR >5000	3.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0
= OR >3500	6.0	6.9	7.1	7.1	7.1	7.1	7.1	7.2
= OR >2000	20.3	23.9	24.5	24.6	24.6	24.6	24.6	24.7
= OR >1000	30.1	35.9	37.4	37.5	37.5	37.7	37.7	37.8
= OR >600	34.6	42.7	44.4	44.6	44.6	44.7	44.7	44.8
= OR >300	35.2	43.9	46.0	46.3	46.3	46.4	46.4	46.5
= OR >150	35.3	44.1	46.3	46.6	46.6	46.8	46.9	47.0
= OR > 0	35.3	44.1	46.8	47.2	47.2	47.9	48.1	48.5
TOTAL	310	388	411	415	415	421	423	426

TOTAL NUMBER OF OBS: 879 PCT FREQ NH <5/8: 51.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
12.9	14.5	12.8	5.1	6.3	4.3	8.7	11.2	22.9	1.4	939

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	PCP	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.1	
<1/2	NO PCP	.1	.3	.2	.3	.4	*	.1	.0	.0	.1	1.6	
	TOT %	.1	.4	.3	.3	.4	*	.1	.0	.0	.1	1.7	
	PCP	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	NO PCP	.2	.2	.1	.0	.2	.0	.0	*	.0	.0	.8	
	TOT %	.2	.3	.1	.0	.2	.0	.0	*	.0	.0	.9	
	PCP	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.3	
1<2	NO PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.1	.2	.0	.2	.0	.0	.0	.0	.0	.5	
	PCP	.0	.2	.1	*	.2	.1	.0	.0	.0	.0	.7	
2<5	NO PCP	.2	.5	.0	.3	.7	.3	.0	.0	.0	.4	2.4	
	TOT %	.2	.7	.1	.3	1.0	.4	.0	.0	.0	.4	3.0	
	PCP	.2	.3	.2	.2	1.1	.7	.2	.1	.0	.0	3.0	
5<10	NO PCP	2.8	3.9	1.3	1.8	2.6	3.2	.6	.7	.0	.6	17.5	
	TOT %	3.0	4.2	1.5	2.1	3.7	3.9	.9	.8	.0	.6	20.5	
	PCP	.2	.1	.1	.2	.2	.1	.0	*	.0	.0	.9	
10+	NO PCP	10.2	20.8	7.2	5.0	11.0	7.5	2.3	4.0	.0	4.3	72.5	
	TOT %	10.5	20.9	7.3	5.2	11.2	7.6	2.3	4.1	.0	4.3	73.4	
	TOT OBS												1053
	TOT PCT	13.9	26.6	9.5	7.9	16.6	11.9	3.3	4.9	.0	5.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
	0-3	.1	.0	.1	*	.0	.0	.0	.0	.0	.1	.4	
<1/2	4-10	*	.4	.2	.3	.4	*	.1	.0	.0		1.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.1	.4	.3	.3	.4	*	.1	.0	.0	.1	1.7	
	0-3	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	4-10	.2	.1	.0	*	.2	.0	.0	*	.0		.7	
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.2	.3	.1	*	.2	.0	.0	*	.0	.0	.9	
	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.0	.0	.1	*	*	.0	.0	.0	.0		.2	
	11-21	.0	.1	.1	.0	.2	.0	.0	.0	.0		.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.1	.2	*	.2	.0	.0	.0	.0	.0	.6	
	0-3	.0	.0	.0	*	*	.1	.0	.0	.0	.4	.6	
2<5	4-10	.2	.6	.1	.2	.1	.1	.0	.0	.0		1.3	
	11-21	.0	.1	.0	*	.5	.2	.0	.0	.0		.8	
	22+	.0	.0	.0	.0	.5	*	.0	.0	.0		.6	
	TOT %	.2	.7	.1	.3	1.3	.4	.0	.0	.0	.4	3.3	
	0-3	.4	.4	.1	.1	.0	.1	*	*	.0	.6	1.8	
5<10	4-10	.6	1.4	.9	1.3	1.4	.7	.3	.2	.0		6.7	
	11-21	1.3	1.6	.4	.6	1.8	1.8	.3	.4	.0		8.3	
	22+	.6	.8	.0	.1	.4	1.3	.2	.1	.0		3.6	
	TOT %	3.0	4.2	1.5	2.1	3.7	3.9	.8	.8	.0	.6	20.4	
	0-3	.5	.4	.6	*	.4	.4	.0	.1	.0	4.2	6.7	
10+	4-10	3.5	9.2	4.2	3.1	4.7	2.7	1.1	1.1	.0		29.7	
	11-21	5.2	9.6	2.4	1.9	5.3	3.0	1.1	1.9	.0		30.3	
	22+	1.2	1.7	.1	.1	.8	1.5	.1	.8	.0		6.4	
	TOT %	10.4	20.8	7.3	5.2	11.2	7.6	2.3	4.0	.0	4.2	73.1	
	TOT OBS												1059
	TOT PCT	13.9	26.4	9.5	8.0	16.9	11.9	3.3	4.9	.0	5.3	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	1.9	.4	1.9	3.0	10.6	20.5	2.3	.4	1.1	.8	42.8	57.2	264
06&09	2.2	.4	.9	7.0	12.8	14.5	4.0	.9	.9	2.6	46.3	53.7	227
12&15	.7	.0	1.1	8.6	14.5	13.4	3.7	.4	1.5	1.1	45.0	55.0	269
18&21	.7	1.3	3.9	9.9	12.5	21.1	2.0	3.3	.0	3.9	58.6	41.4	152
TOT	13	4	16	62	115	155	28	9	9	17	428	484	912
PCT	1.4	.4	1.8	6.8	12.6	17.0	3.1	1.0	1.0	1.9	46.9	53.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	2.0	.3	.7	3.0	17.8	76.2	298
06&09	2.2	.7	.7	2.9	21.2	72.3	274
12&15	.6	2.0	.6	2.8	20.4	73.7	357
18&21	2.1	.0	.0	4.6	24.7	68.6	194
TOT	18	10	6	36	232	821	1123
PCT	1.6	.9	.5	3.2	20.7	73.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	1.9	4.6	9.6	34.2	56.2	260
06&09	2.4	3.8	14.2	35.4	50.5	212
12&15	.8	1.6	12.4	34.5	53.1	258
18&21	1.3	6.7	17.4	42.3	40.3	149
TOT	14	34	113	316	450	879
PCT	1.6	3.9	12.9	35.9	51.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.1	.0	.0	.1	.0	.0	.0	2	.3
75/79	.0	.1	.0	.1	.1	.0	.0	.0	3	.4
70/74	.0	.1	.1	.4	.3	.1	.3	.1	12	1.8
65/69	.0	.3	.1	1.0	1.8	2.4	1.2	.6	50	7.5
60/64	.0	.0	.3	.1	1.9	6.4	8.8	8.9	178	26.5
55/59	.0	.6	.3	.9	2.5	7.5	13.1	21.2	305	45.5
50/54	.0	.0	.0	.3	2.5	4.3	4.9	5.1	115	17.1
45/49	.0	.0	.0	.0	.0	.4	.3	.1	6	.9
TOTAL	0	9	6	17	63	142	192	242	671	100.0
PCT	.0	1.3	.9	2.5	9.4	21.2	28.6	36.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
	.0	.0	.1	.0	.0	.0	.1	*	.0	.0
	.1	.1	.0	.0	.0	.0	.0	.1	.0	.0
	.5	.2	.0	.0	.1	*	.4	.5	.0	.0
	2.0	2.1	.1	.0	.3	.9	.2	1.0	.0	.7
	5.1	9.8	2.8	1.1	1.9	1.9	1.0	1.8	.0	1.0
	6.5	14.0	4.1	4.1	7.4	5.3	.1	1.0	.0	3.0
	.8	2.3	1.4	2.3	5.7	3.3	.6	.1	.0	.6
	.0	.0	.0	.0	.1	.6	.1	.0	.0	.0
	15.2	28.7	8.5	7.5	15.5	12.0	2.6	4.6	.0	5.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	77	74	70	66	52	50	46	60.5	323
06&09	82	75	68	58	52	49	49	58.6	287
12&15	69	68	64	57	51	48	43	57.2	377
18&21	72	68	64	56	50	47	41	56.7	207
TOT	82	72	68	58	51	49	41	58.4	1194

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-89	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	8.1	11.8	24.2	33.5	22.4	79	161
06&09	.0	2.9	10.5	24.4	25.6	36.6	83	172
12&15	.0	3.5	7.0	20.2	30.0	39.3	85	257
18&21	.0	7.1	11.1	15.1	23.8	42.9	83	126
TOT	0	36	69	152	209	294	83	716

DECEMBER

PERIOD: (PRIMARY) 1958-1977
(OVER-ALL) 1870-1977

AREA 0032 CHRISTCHURCH
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
14/16	.0	.0	.0	.0	.0	.0	.1	.8	.2	10	.0	1.1
11/13	.0	.0	.0	.0	.1	.0	.6	1.2	.2	19	.0	2.1
9/10	.0	.0	.0	.0	.1	.7	1.9	.6	.1	30	.1	3.3
7/8	.0	.0	.0	.0	.6	1.6	1.9	.2	.0	38	.1	4.1
6	.0	.0	.0	.1	.8	1.5	1.3	.1	.0	34	.1	3.7
5	.0	.0	.0	.3	.8	3.3	1.3	.0	.0	51	.0	5.7
4	.0	.0	.0	.2	1.0	3.6	.4	.0	.0	47	.1	5.2
3	.0	.0	.0	.4	3.1	3.0	.3	.0	.0	62	.1	6.8
2	.0	.0	.2	1.8	5.6	2.7	.3	.0	.0	95	.2	10.4
1	.0	.0	.3	2.7	4.9	2.8	.0	.1	.0	97	.6	10.3
0	.0	.0	1.3	3.5	5.8	1.1	.1	.0	.0	106	.8	11.1
-1	.0	.0	.7	3.7	3.9	.7	.0	.0	.0	80	.9	8.1
-2	.0	.1	1.5	3.8	3.6	.2	.0	.0	.0	82	.2	9.0
-3	.0	.1	.4	3.5	1.5	.1	.0	.0	.0	50	.0	5.6
-4	.0	.0	.8	2.8	.9	.1	.0	.0	.0	41	.0	4.6
-5	.0	.0	.4	1.3	.4	.1	.0	.0	.0	21	.1	2.2
-6	.0	.0	.6	.7	.2	.1	.0	.0	.0	14	.1	1.5
-7/-8	.0	.0	.3	.4	.1	.0	.0	.0	.0	8	.2	.7
-9/-10	.1	.0	.2	.1	.0	.0	.0	.0	.0	4	.0	.4
-11/-13	.0	.0	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
-14/-16	.1	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	2		61		299		75		5		33	859
		2		228		192		29		892		
PCT	.2	.2	6.8	29.6	33.5	21.5	8.4	3.1	.6	100.0	3.7	96.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	1.0	.1	.0	.0	.0	1.2
1-2	.5	2.1	1.2	.0	.0	.0	3.8
3-4	.1	1.2	2.0	.5	.0	.0	3.8
5-6	.0	.0	2.3	.5	.0	.0	2.8
7	.0	.2	.7	.4	.1	.0	1.5
8-9	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.1	.1
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.4	6.6	1.8	.1	.1	13.9

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	1.8	.0	.0	.0	.0	1.9
1-2	.6	6.6	2.2	.0	.0	.0	9.4
3-4	.0	1.9	4.3	.3	.0	.0	6.5
5-6	.0	.3	3.2	.8	.0	.0	4.2
7	.0	.2	1.9	.4	.0	.0	2.5
8-9	.0	.0	.0	1.1	.0	.0	1.1
10-11	.0	.0	.6	.1	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.1	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	10.7	12.3	2.9	.0	.0	26.7

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.5	.1	.0	.0	.0	2.0
1-2	.4	3.6	1.1	.0	.0	.0	5.1
3-4	.0	.8	.8	.0	.0	.0	1.7
5-6	.0	.1	.8	.1	.0	.0	1.1
7	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.1	3.1	.1	.0	.0	10.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	*	.3	*	.0	.0	.0	.6
1-2	.0	4.4	.6	.0	.0	.0	5.0
3-4	.0	.4	.6	.0	.0	.0	1.0
5-6	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	*	.0	.0	*
10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	*	.0	.0	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	*	5.3	1.9	*	.0	.0	7.3

PERIOD: (OVER-ALL) 1963-1977 DECEMBER AREA 0032 CHRISTCHURCH

TABLE 18 (CONT) 43.7S 173.3E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	2.0	.0	.0	.0	.0	2.6
1-2	.0	3.3	1.3	.0	.0	.0	4.7
3-4	.0	.9	2.2	.2	.0	.0	3.4
5-6	.0	.1	1.9	.1	.1	.0	2.3
7	.0	.0	1.8	.0	.0	.0	1.8
8-9	.0	.0	.9	.3	.1	.0	1.0
10-11	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.1	.1	.0	.0	.3
13-16	.0	.0	.1	.1	.1	.0	.3
17-19	.0	.1	.0	.0	.1	.0	.2
20-22	.0	.0	.1	.0	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	6.5	8.9	1.0	.5	.0	16.8

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.6	.0	.0	.0	.0	.9
1-2	.1	1.3	.7	.0	.0	.0	2.2
3-4	.0	1.0	2.0	.2	.0	.0	3.2
5-6	.0	.1	.8	.3	.1	.0	1.4
7	.0	.1	1.3	1.0	.0	.0	2.4
8-9	.0	.0	*	.4	.2	.0	.6
10-11	.0	.0	*	.0	.0	.0	*
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.1	*	.2	*	.0	.4
17-19	.0	*	.0	.0	.1	.0	.2
20-22	.0	.0	.0	.1	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.4	5.0	2.1	.5	.0	11.4

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4
1-2	.0	1.2	.2	.0	.0	.0	1.5
3-4	.0	.0	.4	.0	.0	.0	.4
5-6	.0	.0	.1	.1	.0	.0	.2
7	.0	.0	.4	.1	.0	.0	.5
8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.7	1.4	.2	.0	.0	3.3

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.2	*	.0	.0	.0	.4	
1-2	.0	.7	.2	.0	.0	.0	.8	
3-4	.0	.3	1.1	.2	.0	.0	1.6	
5-6	.0	.0	.8	.2	.0	.0	1.1	
7	.0	*	.6	.2	.0	.0	.8	
8-9	.0	.0	.0	.3	.0	.0	.3	
10-11	.0	.0	*	.0	.0	.0	*	
12	.0	.0	.0	*	.0	.0	*	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	1.2	2.8	.9	.0	.0	5.0	94.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.5	7.9	.3	.0	.0	.0	15.7	
1-2	2.1	23.1	7.5	.0	.0	.0	32.7	
3-4	.3	6.4	13.2	1.4	.0	.0	21.3	
5-6	.1	.7	10.3	2.1	.3	.0	13.5	
7	.0	.6	7.0	2.1	.1	.0	9.7	
8-9	.0	.0	.7	2.2	.3	.0	3.2	
10-11	.1	.0	1.0	.1	.0	.0	1.3	
12	.0	.0	.1	.4	.0	.0	.6	
13-16	.0	.1	.4	.4	.1	.0	1.1	
17-19	.0	.1	.0	.0	.3	.0	.4	
20-22	.0	.0	.3	.1	.0	.0	.4	
23-25	.0	.0	.0	.0	.0	.1	.1	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.2	38.9	40.8	8.9	1.1	.1	100.0	719

PERIOD: (OVER-ALL) 1954-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	7.9	11.4	7.6	5.9	1.9	.6	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	308	4
6-7	.0	1.8	4.8	6.5	7.4	1.7	2.3	1.1	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	238	6
8-9	.0	.6	3.0	3.0	4.6	1.7	1.0	.2	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	123	6
10-11	.0	1.2	.8	1.1	1.4	.8	.0	.1	.2	.1	.2	.1	.0	.1	.0	.0	.0	.0	.0	55	7
12-13	.0	.0	1.7	.6	.7	.1	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	28	9
>13	.0	.0	.0	1.1	.7	.0	.1	.0	.1	.0	.2	.2	.0	.0	.0	.0	.0	.1	.0	22	12
INDET	3.4	.8	.7	1.0	.8	.1	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	62	3
TOTAL	38	103	187	189	180	93	55	16	17	5	6	3	0	1	0	0	1	0	0	834	5
PCT	4.6	12.4	22.4	22.7	21.6	6.4	4.2	1.9	2.0	.6	.7	.4	.0	.1	.0	.0	.1	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
N	1.3	.5	1.0	.0	.0	.0	*	2.8	.4	.6	3.0	.1	1.1		.2	91.7
NE	2.0	.0	1.5	.0	.0	.0	*	4.1	1.2	.3	4.9	.3	1.7		.1	87.4
E	6.8	1.8	3.8	.0	.0	.0	.0	12.2	2.7	.2	6.8	.2	1.2		.1	76.8
SE	6.1	1.6	5.8	.0	.0	.0	.1	13.6	2.5	.5	5.4	.1	.4		.1	77.7
S	8.4	2.6	3.3	.0	.0	.0	.1	14.4	3.5	.1	3.1	.1	.6		.2	78.1
SW	6.9	3.0	3.2	.0	*	.0	.2	13.2	4.2	.3	2.4	.1	1.0		.3	78.5
W	2.4	2.2	1.4	.0	.0	.0	.1	6.0	2.9	.8	3.2	.0	1.1		.0	86.5
NW	1.6	1.2	.8	.0	.0	.0	.0	3.6	.4	1.6	1.9	.3	.6		.2	91.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0
CALM	.6	.0	.6	.0	.0	.0	.0	1.2	.8	.0	5.0	.6	1.0		.0	91.3
TOT PCT	4.2	1.5	2.3	.0	*	.0	.1	8.1	2.2	.4	3.8	.2	1.1		.1	84.2
TOT OBS:	11663															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

	PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00&03	3.8	1.0	1.8	.0	.0	.0	.1	6.7	2.3	*	4.0	.2	1.5		.2	85.1
06&09	3.8	1.5	2.1	.0	.0	.0	.1	7.4	1.6	.3	4.0	.1	1.4		.1	85.1
12&15	4.5	1.6	2.6	.0	*	.0	.1	8.8	2.7	.8	3.1	.1	.9		.2	83.5
18&21	4.6	2.0	2.8	.0	.0	.0	.1	9.4	1.9	.4	4.5	.3	.7		.3	82.5
TOT PCT	4.2	1.5	2.3	.0	*	.0	.1	8.1	2.2	.4	3.8	.2	1.1		.2	84.1
TOT OBS:	12235															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

	WIND SPEED (KNOTS)									HOUR (GMT)						
WND DIR	0-3	4-10	11-21	22-33	34-47	48+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	09	12	15	18	21
N	.9	6.6	6.4	1.5	.2	.1		15.6	12.7	15.5	14.7	13.1	15.9	16.3	18.7	16.0	17.0
NE	1.0	9.0	8.7	1.5	.1	*		20.4	11.9	18.4	26.3	25.3	21.8	21.5	14.0	19.0	15.2
E	.7	4.5	2.4	.3	.1	*		8.1	10.3	8.9	9.9	11.3	8.7	7.4	4.9	6.0	6.3
SE	.5	3.7	2.2	.3	*	*		6.7	10.3	6.4	8.5	7.9	6.3	6.4	6.6	6.2	5.5
S	.7	5.6	4.2	2.0	.5	.1		15.1	14.2	15.5	17.6	15.7	15.4	13.9	15.3	14.6	16.2
SW	.5	4.3	6.8	3.4	1.1	.1		16.2	16.9	17.7	11.6	13.8	14.3	14.3	19.2	18.8	22.5
W	.4	2.4	1.8	.5	.1	*		5.3	12.5	5.6	4.0	3.1	4.9	5.8	7.8	5.6	6.2
NW	.4	3.4	2.8	.7	.1	*		7.4	12.9	7.0	4.9	5.2	8.4	8.9	7.5	7.6	7.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.3							5.3	.0	5.0	2.6	4.6	4.3	5.7	5.8	7.2	3.2
TOT OBS							13072		12.4	2716	419	2169	1129	3763	910	1913	553
TOT PCT	10.5	39.4	37.4	10.2	2.2	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

	WIND SPEED (KNOTS)								HOUR (GMT)			
WND DIR	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00 03	06 09	12 15	18 21
N	3.7	7.7	3.4	.7	.1		15.6	12.7	15.4	14.0	16.7	16.2
NE	4.6	11.5	3.9	.4	*		20.4	11.9	19.4	24.0	20.0	17.4
E	3.0	4.0	.9	.1	.1		8.1	10.3	9.0	10.4	6.7	6.1
SE	2.2	3.4	1.0	.1	*		6.7	10.3	6.7	7.3	6.5	6.1
S	2.8	7.1	4.0	1.0	.2		15.1	14.2	15.7	15.6	14.2	15.0
SW	2.2	6.2	5.5	2.0	.4		16.2	16.9	16.9	14.1	15.5	19.4
W	1.5	2.4	1.1	.2	*		5.3	12.5	5.4	3.8	6.1	5.8
NW	1.9	3.5	1.7	.3	.1		7.4	12.9	6.8	6.3	8.5	7.7
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.3						5.3	.0	4.7	4.5	5.8	6.4
TOT OBS						13072		12.4	3135	3298	4173	2466
TOT PCT	27.3	45.8	21.3	4.7	1.0		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS) 1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00&03	4.7	5.2	40.1	37.5	9.9	2.3	.3	12.4	100.0	3135
06&09	4.5	4.3	38.5	39.6	10.5	2.3	.3	12.8	100.0	3298
12&15	5.8	5.0	38.9	37.7	10.3	2.0	.2	12.4	100.0	4173
18&21	6.4	6.3	40.7	33.9	10.1	2.1	.5	12.0	100.0	2466
TOT								12.4		13072
PCT	5.3	5.2	39.4	37.4	10.2	2.2	.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	6.1	2.4	5.0	2.5		4.0
NE	8.1	3.0	5.8	4.5		4.2
E	2.3	.9	2.3	2.7		5.0
SE	1.1	.7	2.0	2.7		5.8
S	2.3	1.7	5.0	5.6		5.8
SW	2.9	2.3	5.6	5.8		5.5
W	1.7	.6	1.2	1.1		4.2
NW	2.5	1.1	1.9	1.1		4.1
VAR	.0	.0	.0	.0		.0
CALM	2.6	.9	1.4	.8		3.5
TOT OBS					8492	4.7
TOT PCT	29.5	13.5	30.3	26.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT,NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WND DIR	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.2	*	.1	.5	1.6	1.7	.5	.2	.2	.3	10.7	
NE	.6	*	.2	1.1	2.3	2.7	.6	.1	.2	.2	13.2	
E	.4	*	.2	.4	1.2	1.2	.4	.1	*	.1	3.9	
SE	.2	.1	.1	.8	1.2	1.3	.3	.1	*	.1	2.4	
S	.5	.1	.3	1.8	2.8	2.9	.7	.1	.1	.1	5.3	
SW	.5	.1	.4	1.9	3.3	3.2	.5	.1	.1	.1	6.5	
W	.1	*	*	.3	.4	.6	.2	*	.1	*	2.7	
NW	*	*	.1	.3	.7	.7	.3	.1	*	.1	4.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.2	.0	*	.2	.5	.7	.2	*	.1	.1	3.7	
TOT OBS												8492
TOT PCT	2.8	.4	1.4	7.4	14.2	14.9	3.6	.9	.8	1.0	52.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM) * OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8
* OR >5000	2.3	2.7	2.8	2.8	2.8	2.8	2.8	2.8
* OR >3500	5.1	6.2	6.3	6.3	6.3	6.3	6.3	6.4
* OR >2000	17.1	20.8	21.2	21.2	21.3	21.3	21.3	21.3
* OR >1000	27.3	34.1	35.3	35.4	35.4	35.5	35.5	35.5
* OR >600	30.9	40.7	42.5	42.7	42.8	42.9	42.9	42.9
* OR >300	31.4	41.7	43.8	44.1	44.2	44.2	44.2	44.2
* OR >150	31.5	41.8	44.1	44.4	44.5	44.6	44.6	44.6
* OR > 0	31.8	42.6	45.6	46.1	46.5	46.8	47.3	47.4

TOTAL NUMBER OF OBS: 8816

PCT FREQ NH <5/8: 52.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
16.8	11.6	10.7	7.4	5.5	5.6	7.9	10.9	22.0	2.3	9432

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	*	*	.0	*	*	.0	.0	.0	.0	.1	
	NO PCP	.1	.3	.2	.1	.1	.1	*	.1	.0	.1	1.3	
	TOT %	.1	.3	.3	.1	.2	.2	*	.1	.0	.1	1.4	
1/2<1	PCP	*	.1	*	*	*	.1	*	*	.0	*	.3	
	NO PCP	.1	.3	.2	.1	.1	.1	*	*	.0	.1	1.0	
	TOT %	.2	.3	.2	.1	.1	.2	.1	.1	.0	.1	1.3	
1<2	PCP	*	*	.1	.1	*	.1	*	*	.0	*	.3	
	NO PCP	*	.1	*	*	.1	.1	*	*	.0	*	.4	
	TOT %	.1	.1	.1	.1	.1	.2	.1	*	.0	*	.7	
2<5	PCP	*	.2	.1	.2	.4	.5	.1	*	.0	*	1.4	
	NO PCP	.1	.3	.2	.1	.3	.4	.1	*	.0	.1	1.7	
	TOT %	.1	.4	.3	.3	.7	.9	.1	*	.0	.1	3.1	
5<10	PCP	.2	.4	.5	.4	1.2	1.4	.2	.1	.0	*	4.3	
	NO PCP	2.4	3.3	1.4	1.4	3.1	3.5	1.0	1.4	.0	.7	18.2	
	TOT %	2.6	3.7	1.8	1.8	4.3	4.9	1.1	1.5	.0	.7	22.5	
10+	PCP	.1	.1	.1	.2	.5	.4	.1	.1	.0	.0	1.6	
	NO PCP	12.4	15.3	5.2	4.1	8.9	9.9	3.6	5.6	.0	4.3	69.4	
	TOT %	12.5	15.5	5.4	4.3	9.4	10.3	3.7	5.7	.0	4.3	71.0	
	TOT OBS												11698
	TOT PCT	15.6	20.4	8.0	6.7	14.8	16.6	5.1	7.4	.0	5.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	*	*	.1	*	*	*	*	*	.0	.1	.4	
	4-10	.1	.1	.1	.1	.1	.1	*	*	.0		.7	
	11-21	*	.1	.1	*	*	*	.0	*	.0		.3	
	22+	*	*	.0	.0	*	*	.0	.0	.0		.1	
	TOT %	.1	.3	.3	.1	.1	.2	*	.1	.0	.1	1.4	
1/2<1	0-3	*	*	*	*	*	*	*	*	.0	.1	.3	
	4-10	.1	.2	.1	.1	.1	.1	*	*	.0		.6	
	11-21	.1	.1	*	*	*	.1	*	*	.0		.3	
	22+	*	.1	*	*	*	*	.0	.0	.0		.1	
	TOT %	.2	.3	.2	.1	.1	.2	.1	.1	.0	.1	1.3	
1<2	0-3	*	*	*	.0	*	.0	*	*	.0	*	.1	
	4-10	*	.1	.1	*	*	*	*	*	.0		.3	
	11-21	*	*	*	*	*	.1	*	.0	.0		.2	
	22+	*	*	*	*	*	.1	*	.0	.0		.2	
	TOT %	.1	.2	.1	.1	.1	.2	.1	*	.0	*	.9	
2<5	0-3	*	.1	*	*	*	*	*	*	.0	.1	.3	
	4-10	.1	.3	.1	.1	.2	.1	.1	*	.0		1.0	
	11-21	*	.2	.1	.1	.3	.4	.1	*	.0		1.2	
	22+	*	*	.1	*	.3	.5	*	*	.0		.9	
	TOT %	.2	.6	.3	.3	.8	1.0	.2	.1	.0	.1	3.5	
5<10	0-3	.2	.2	.1	.1	.1	.1	.1	.1	.0	.7	1.8	
	4-10	1.0	1.4	.8	.8	1.3	.9	.4	.7	.0		7.4	
	11-21	1.0	1.6	.7	.7	1.9	2.0	.4	.5	.0		8.7	
	22+	.4	.8	.2	.1	.9	1.9	.2	.2	.0		4.5	
	TOT %	2.6	3.7	1.8	1.8	4.3	4.9	1.1	1.5	.0	.7	22.4	
10+	0-3	.7	.7	.4	.2	.5	.6	.3	.1	.0	4.3	7.5	
	4-10	5.1	6.8	3.3	2.4	3.7	3.2	1.8	2.5	.0		28.8	
	11-21	5.6	6.7	1.5	1.4	4.0	4.6	1.3	2.3	.0		27.4	
	22+	1.2	1.1	.1	.1	1.2	2.2	.3	.7	.0		6.9	
	TOT %	12.4	15.4	5.3	4.2	9.4	10.3	3.6	5.7	.0	4.3	70.6	
	TOT OBS												11795
	TOT PCT	15.6	20.4	8.0	6.7	14.8	16.9	5.1	7.5	.0	5.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00&03	2.3	.4	1.1	6.5	13.8	17.6	3.8	1.0	1.1	.6	48.3	51.7	2455
06&09	2.3	.5	1.4	7.0	11.5	16.2	3.8	1.1	.7	1.1	45.6	54.4	2452
12&15	3.4	*	1.2	6.5	14.3	9.8	2.8	.6	.8	1.1	40.6	59.4	2534
18&21	2.7	.7	1.8	9.5	16.4	13.9	3.8	1.2	.4	1.1	51.5	48.5	1661
TOT													9102
PCT	2.7	.4	1.3	7.2	13.8	14.5	3.6	1.0	.8	1.0	46.1	53.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00&03	1.5	1.4	.9	3.8	21.6	70.9	2916
06&09	1.5	1.2	.7	2.7	22.8	71.1	3128
12&15	1.1	1.1	.8	3.1	20.7	73.3	3995
18&21	2.2	1.0	.9	4.3	26.7	64.3	2335
TOT							12374
PCT	1.5	1.3	.8	3.4	22.5	70.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00&03	2.3	4.0	12.5	36.8	50.8	2407
06&09	2.4	4.6	13.0	34.3	52.7	2372
12&15	3.5	4.6	13.1	29.8	57.1	2404
18&21	2.8	5.4	16.7	35.8	47.5	1633
TOT						8816
PCT	2.7	4.7	13.5	34.1	52.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	*	.0	.0	*	.0	.0	.0		*
75/79	.0	*	*	*	*	*	.0	.0		.1
70/74	*	*	*	.2	.2	.1	.1	*		.8
65/69	*	.1	.1	.4	.4	1.0	1.1	.6		3.9
60/64	.0	.2	.2	.9	1.9	2.7	4.3	5.8		14.8
55/59	*	.2	.5	.4	2.3	5.8	8.4	9.1		26.8
50/54	.0	*	.3	.7	3.1	6.6	10.4	9.6		30.7
45/49	.0	*	.1	.6	1.5	4.0	6.9	6.8		19.9
40/44	.0	.0	.0	*	.2	.5	.7	1.4		2.8
35/39	.0	.0	.0	.0	.0	*	*	.1		.1
30/34	.0	.0	.0	.0	*	.0	.0	*		*
TOTAL									6474	100.0
PCT	.1	.6	1.3	2.8	9.3	20.7	31.8	33.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	*	.0	.0	.0	*	*	.0	.0
*	*	.0	.0	.0	.0	.0	*	.0	.0
.1	.1	*	*	.1	*	.1	.2	.0	.1
1.0	1.0	.2	.1	.2	.3	.2	.7	.0	.2
3.1	4.9	1.4	.5	1.2	1.1	.6	1.5	.0	.5
4.8	7.1	2.5	2.2	3.3	2.9	1.0	1.9	.0	1.2
5.1	6.2	2.2	1.8	5.0	5.4	1.6	2.2	.0	1.1
2.1	2.4	1.3	1.5	4.1	5.6	1.3	.9	.0	.7
.1	.2	.1	.3	.7	.9	.2	.1	.0	.2
*	.0	.0	.0	.0	.1	.0	*	.0	.0
*	*	.0	.0	.0	.0	.0	*	.0	.0
16.4	22.1	7.8	6.5	14.6	16.2	5.0	7.5	.0	3.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	79	68	63	55	49	45	30	56.4	3173
06&09	82	66	62	54	48	44	32	55.4	3306
12&15	79	64	61	53	47	44	30	54.4	4291
18&21	73	64	60	53	47	43	32	53.6	2497
TOT	82	66	62	54	48	44	30	55.0	13267

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.2	6.6	12.1	25.3	31.8	24.0	80	1364
06&09	.2	4.4	9.1	21.8	34.0	30.6	83	1622
12&15	.0	4.1	8.5	18.2	30.6	38.6	84	2566
18&21	.2	4.4	8.2	19.2	30.7	37.4	84	1227
TOT	8	323	640	1402	2126	2280	83	6779

PERIOD: (PRIMARY) 1933-1978
(OVER-ALL) 1863-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION) VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	29 32	33 36	37 40	41 44	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WO FOG
23/25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	2	.0	*
20/22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	*	8	*	.1
17/19	.0	.0	.0	.0	.0	.0	.0	*	*	*	.1	*	*	17	.0	.2
14/16	.0	.0	.0	.0	.0	.0	.0	*	.1	.1	.2	.1	*	59	.0	.5
11/13	.0	.0	.0	.0	.0	.0	.1	.1	.1	.4	.2	.1	*	106	*	1.0
9/10	.0	.0	.0	.0	.0	.1	*	.3	.5	.5	.3	*	*	189	*	1.8
7/8	.0	.0	.0	.0	.0	*	.1	.5	.9	.6	.2	*	.0	246	.1	2.3
6	.0	.0	.0	.0	.0	.1	.4	.6	.5	.4	.1	*	.0	211	.1	2.0
5	.0	.0	.0	.0	.1	.2	1.1	1.0	1.4	.5	*	*	.0	433	.1	4.2
4	.0	.0	.0	.0	.1	.3	1.2	1.4	1.3	.3	*	.0	.0	484	.1	4.6
3	.0	.0	.0	.0	.1	.8	1.8	1.6	1.2	.3	.0	.0	.0	575	.2	5.5
2	.0	.0	.0	.0	.5	1.9	2.5	2.4	1.4	.2	.1	.0	.0	864	.3	8.6
1	.0	.0	.0	*	.7	2.5	2.7	2.5	1.4	.1	*	.0	.0	965	.5	9.4
0	.0	.0	.0	.1	1.1	3.5	3.4	2.8	1.1	.1	.0	.0	.0	1181	.8	11.3
-1	.0	.0	.0	*	1.3	3.0	2.5	2.1	.6	.1	.0	.0	.0	927	.9	9.1
-2	.0	.0	.0	.2	2.0	2.7	2.2	1.4	.3	*	.0	.0	.0	843	.4	8.6
-3	.0	.0	.0	.2	2.1	2.1	1.7	.8	.2	*	.0	.0	.0	664	.3	6.9
-4	.0	.0	*	.3	2.0	1.6	1.4	.6	.1	*	.0	.0	.0	559	.3	5.8
-5	.0	.0	*	.4	2.2	1.6	1.0	.4	.1	*	.0	.0	.0	504	.1	5.5
-6	.0	.0	.0	.4	1.1	.8	.3	.1	*	.0	.0	.0	.0	229	.1	2.5
-7/-8	.0	.0	.1	.5	1.3	.9	.4	.1	*	.0	.0	.0	.0	299	.1	3.2
-9/-10	.0	.0	.1	.3	.9	.4	.1	*	.0	.0	.0	.0	.0	157	*	1.8
-11/-13	.0	*	*	.2	.3	.1	*	.0	.0	.0	.0	.0	.0	57	.0	.7
-14/-16	.0	*	*	*	.1	*	*	.0	.0	.0	.0	.0	.0	20	*	.2
-17/-19	.0	*	*	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	5	.0	*
-20/-22	*	.0	*	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	4	.0	*
TOTAL														9608		
PCT	*	*	.3	2.7	15.8	22.6	22.9	18.8	11.5	3.7	1.2	.3	.1	100.0	4.0	96.0

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.4	.1	.0	.0	.0	2.0
1-2	.2	2.8	1.2	.0	.0	.0	4.3
3-4	*	1.5	2.5	.2	.0	.0	4.2
5-6	.0	.3	1.7	.4	.1	.0	2.5
7	.0	.1	.8	.4	.1	.0	1.4
8-9	.0	*	.3	.2	*	.0	.6
10-11	.0	*	.2	.1	*	*	.4
12	.0	.0	*	.1	*	.0	.1
13-16	.0	.0	*	.1	*	.0	.1
17-19	.0	*	.0	*	*	.0	.1
20-22	.0	.0	*	*	.0	.0	*
23-25	.0	.0	.0	.0	*	*	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	6.2	6.9	1.6	.3	*	15.8

NE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	2.0	.1	.0	.0	.0	2.7
1-2	.4	4.2	1.8	.0	.0	.0	6.4
3-4	*	2.0	3.4	.2	.0	.0	5.6
5-6	*	.6	2.3	.4	*	.0	3.3
7	.0	.2	1.1	.4	*	.0	1.6
8-9	.0	*	.3	.3	*	.0	.7
10-11	.0	.0	.2	.2	*	.0	.3
12	.0	*	*	*	*	.0	.1
13-16	.0	.0	*	.1	*	.0	.1
17-19	.0	*	.0	*	.0	.0	*
20-22	.0	.0	*	.0	.0	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	9.1	9.2	1.6	.1	.0	20.9

E

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.2	*	.0	.0	.0	1.6
1-2	.2	2.3	.6	.0	.0	.0	3.1
3-4	*	1.0	.9	.1	.0	.0	1.9
5-6	.0	.1	.4	.1	.0	.0	.8
7	.0	*	.1	.1	*	*	.3
8-9	*	.0	.1	*	.0	.0	.1
10-11	.0	.0	*	*	.0	.0	*
12	.0	.0	*	.1	.0	.0	.1
13-16	.0	.0	*	*	.0	.0	*
17-19	.0	.0	*	.0	.0	.0	*
20-22	.0	.0	.0	*	.0	.0	*
23-25	.0	.0	.0	*	.0	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.6	2.4	.4	.1	*	8.1

SE

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.8	*	.0	.0	.0	1.1
1-2	*	2.0	.4	.0	.0	.0	2.4
3-4	*	.6	.9	*	.0	.0	1.5
5-6	.0	.1	.6	.1	.0	.0	.8
7	.0	.0	.2	*	*	*	.3
8-9	.0	*	.1	*	.0	.0	.1
10-11	.0	.0	*	*	.0	.0	*
12	.0	*	*	.0	.0	.0	*
13-16	.0	.0	*	.0	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	*	.0	.0	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.5	2.3	.2	*	*	6.3

PERIOD: (OVER-ALL) 1963-1978

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.2	.1	.0	.0	.0	1.6
1-2	.2	2.3	.9	.0	.0	.0	3.4
3-4	*	1.5	2.1	.2	.0	.0	3.9
5-6	*	.3	2.0	.4	.1	.0	2.7
7	.0	.1	.9	.5	*	.0	1.6
8-9	.0	*	.3	.3	*	*	.6
10-11	.0	*	.2	.3	.1	*	.6
12	.0	.0	*	.1	*	.0	.1
13-16	.0	*	*	.2	.1	*	.3
17-19	.0	*	.0	.0	*	.0	*
20-22	.0	.0	*	*	*	.0	*
23-25	.0	.0	.0	.0	*	.0	*
26-32	.0	.0	.0	*	.0	.0	*
33-40	.0	.0	.0	*	*	*	*
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.5	6.6	1.9	.4	.1	14.9

SW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.8	.1	.0	.0	.0	1.0
1-2	.2	1.9	1.0	.0	.0	.0	3.1
3-4	*	1.1	2.2	.4	.0	.0	3.7
5-6	*	.2	1.9	.8	.2	.0	3.1
7	.0	.1	1.2	.8	*	*	2.2
8-9	.0	*	.3	.5	.2	*	1.1
10-11	.0	.0	.3	.4	.2	*	.9
12	.0	*	.1	.3	.1	.0	.4
13-16	.0	*	.1	.4	.2	.1	.8
17-19	.0	*	*	.1	.1	*	.2
20-22	.0	.0	.0	*	.1	.0	.2
23-25	.0	.0	*	*	.1	.0	.1
26-32	.0	.0	.0	*	*	*	*
33-40	.0	.0	.0	.0	.0	*	*
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.1	7.3	3.7	1.2	.2	16.9

W

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	.0	.0	.0	.0	.7
1-2	.2	1.0	.3	.0	.0	.0	1.5
3-4	*	.5	.6	.1	.0	.0	1.2
5-6	*	.1	.3	.1	*	.0	.5
7	.0	*	.2	.1	.0	*	.3
8-9	.0	.0	*	*	.0	.1	.1
10-11	.0	*	.1	.1	.0	.0	.2
12	.0	*	*	*	.0	.0	*
13-16	.0	.0	*	.1	*	*	.1
17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	*	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.2	1.6	.5	*	*	4.7

NW

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.6	*	.0	.0	.0	.8	
1-2	*	1.5	.6	.0	.0	.0	2.1	
3-4	.0	.6	1.1	.1	.0	.0	1.7	
5-6	.0	.1	.9	.2	*	.0	1.3	
7	.0	*	.3	.2	.1	*	.6	
8-9	.0	*	.1	.2	*	.0	.3	
10-11	.0	*	*	.1	*	*	.2	
12	.0	*	*	*	.0	*	.1	
13-16	.0	.0	*	*	.0	.0	.1	
17-19	.0	.0	*	.0	*	.0	*	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	2.9	3.0	.8	.1	*	7.0	94.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.2	8.7	.5	.0	.0	.0	17.4	
1-2	1.5	17.9	6.8	.0	.0	.0	26.2	
3-4	.2	8.7	13.5	1.2	.0	.0	23.6	
5-6	.1	1.8	10.2	2.5	.3	.0	14.9	
7	.0	.6	4.9	2.4	.3	*	8.3	
8-9	*	.1	1.5	1.6	.3	*	3.6	
10-11	*	.1	.9	1.2	.4	.1	2.6	
12	.0	.1	.2	.6	.1	*	1.0	
13-16	.0	*	.3	.8	.3	.1	1.6	
17-19	.0	.1	*	.1	.1	*	.4	
20-22	.0	.0	*	.1	.1	.0	.3	
23-25	.0	.0	*	*	.1	*	.2	
26-32	.0	.0	.0	*	*	*	*	
33-40	.0	.0	.0	*	*	*	*	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
								8148
TOT PCT	10.0	38.0	38.9	10.9	2.2	.3	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.1	7.2	11.1	8.1	4.1	1.6	.8	.3	.2	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	3169	4
6-7	.0	1.0	5.0	7.5	6.9	3.5	2.4	.9	1.4	.2	.2	.1	.0	*	.0	.0	.0	.0	.0	2591	7
8-9	*	.6	2.0	2.3	3.2	1.7	2.0	.7	1.1	.3	.2	*	.1	*	.0	*	.0	.0	.0	1286	8
10-11	.0	1.6	.8	.6	1.2	.8	.6	.3	.5	.2	.2	.1	.1	*	*	*	.0	.0	.0	624	7
12-13	.0	.0	2.0	.5	.5	.2	.2	.1	.1	*	.1	.1	.1	.0	.0	.0	*	.0	.0	364	7
>13	.0	.0	.0	.9	.6	.2	.2	.1	.2	.1	.2	.1	*	.1	*	.0	*	.0	.0	226	10
INDET	3.9	.8	1.1	.9	.8	.3	.2	.1	.2	*	*	*	*	.0	.0	*	.0	.0	.0	751	3
TOTAL																				9011	6
PCT	5.0	11.1	21.9	21.2	17.3	8.3	6.4	2.4	3.7	.9	.8	.5	.2	.1	*	*	*	.0	.0	100.0	

PERIOD: (PRIMARY) 1933-1978
(OVER-ALL) 1863-1978

AREA 0032 CHRISTCHURCH
43.7S 173.3E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
77/78	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
75/76	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
73/74	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
71/72	.1	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	.1
69/70	.1	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.1	9	.1
67/68	1.0	1.3	.7	1.1	.0	.0	.0	.0	.0	.0	.0	.2	50	.5
65/66	1.4	2.5	2.1	.9	.1	.0	.0	.0	.0	.0	.0	.5	85	.8
63/64	9.7	11.8	8.6	1.5	.4	.2	.0	.0	.0	.2	.5	3.1	425	3.9
61/62	18.8	22.2	16.3	6.4	.6	.3	.2	.0	.3	.7	.6	9.4	878	8.0
59/60	22.1	23.5	22.3	13.9	5.0	1.3	1.1	.6	.7	1.1	3.2	22.1	1295	11.8
57/58	23.4	20.6	19.5	22.2	11.4	4.8	.3	.6	1.1	2.9	16.9	28.6	1634	14.9
55/56	16.2	12.9	17.2	25.6	18.7	12.1	5.6	3.4	7.9	11.9	26.7	17.5	1727	15.7
53/54	4.9	3.6	8.8	17.4	25.7	21.4	7.2	8.0	12.2	31.4	22.4	12.1	1561	14.2
51/52	1.5	.6	3.1	7.3	25.0	28.8	28.9	17.9	23.5	23.8	17.7	3.9	1441	13.1
49/50	.3	.3	.3	1.7	9.9	24.5	36.3	32.9	29.7	19.8	7.5	2.2	1163	10.6
47/48	.2	.3	.3	1.5	2.7	4.6	12.0	23.3	15.5	6.0	3.0	.2	472	4.3
45/46	.1	.0	.0	.4	.4	1.3	6.9	12.4	8.2	1.5	1.4	.1	210	1.9
43/44	.0	.0	.0	.0	.3	.7	1.3	1.0	.4	.6	.0	.0	28	.3
41/42	.0	.0	.0	.0	.0	.0	.3	.0	.7	.0	.0	.0	7	.1
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	1438	1199	987	919	1142	604	626	502	748	827	970	1029	10991	100.0
MEAN	58.7	59.4	58.4	56.3	53.6	52.1	50.2	49.4	50.4	52.3	54.0	57.2	54.3	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1014	1013	1013	1009	1013	1009	1014	1008	1013	1439
FEB	1016	1012	1014	1014	1016	1015	1015	1012	1015	1202
MAR	1016	1013	1016	1016	1017	1015	1017	1014	1016	1036
APR	1013	1010	1012	1013	1014	1014	1014	1011	1013	1025
MAY	1013	1014	1012	1012	1013	1012	1012	1014	1013	1145
JUN	1014	1014	1011	1015	1014	1012	1013	1016	1013	732
JUL	1014	1013	1014	1014	1015	1011	1012	1009	1014	758
AUG	1016	1013	1014	1014	1014	1019	1013	1013	1014	567
SEP	1014	1011	1013	1008	1013	1011	1014	1008	1013	839
OCT	1012	1011	1009	1009	1011	1010	1009	1007	1010	1014
NOV	1011	1012	1010	1008	1010	1013	1010	1009	1010	1107
DEC	1011	1010	1010	1012	1011	1011	1009	1011	1011	1090
ANN	1014	1012	1012	1012	1013	1013	1013	1011	1013	11954
OBS	2493	350	2081	922	3103	841	1835	331		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	981	985	996	1006	1013	1020	1028	1032	1036
FEB	987	993	1001	1010	1015	1021	1027	1030	1035
MAR	984	991	1000	1010	1017	1023	1029	1034	1039
APR	983	985	994	1006	1014	1021	1030	1033	1038
MAY	981	985	993	1005	1013	1021	1029	1032	1038
JUN	979	984	995	1006	1014	1021	1031	1035	1040
JUL	977	986	993	1006	1014	1023	1032	1036	1041
AUG	976	986	995	1008	1016	1022	1029	1032	1040
SEP	977	987	995	1006	1013	1019	1028	1033	1036
OCT	979	987	994	1004	1010	1017	1026	1031	1035
NOV	981	986	994	1005	1011	1018	1026	1029	1034
DEC	985	990	996	1006	1011	1017	1025	1027	1032

USCOMM-NOAA-ASHEVILLE, N.C.-7/79/150

Volume	Area	Name	Approximate Central Location	
1	1	Nauru Is. and Ocean Is.	0.5°S	168.0°E
	2	Gilbert Islands	0.0°	174.5°E
	3	Canton Is. and Phoenix Is.	3.0°S	171.5°W
	4	Christmas Is. and Jarvis Is.	0.5°N	158.5°W
	5	Solomon Islands NE	7.5°S	159.5°E
	6	Solomon Islands SW	8.5°S	158.5°E
	7	Funafuti Atoll	9.0°S	179.0°E
	8	Marquesas Islands	9.0°S	139.0°W
2	9	Isle Wallis	13.0°S	176.0°W
	10	Samoa Islands	14.0°S	171.0°W
	11	New Caledonia	20.4°S	166.1°E
	12	New Hebrides Islands	17.3°S	168.2°E
	13	Fiji Islands	17.6°S	179.1°E
	14	Tonga Islands	19.8°S	174.6°W
	15	Niue Island	19.0°S	170.0°W
	16	Rarotonga Is. (Lower Cook Islands)	20.2°S	158.7°W
3	17	Tahiti Is. and Moorea Is.	17.0°S	151.0°W
	18	Tuamotu Archipelago	16.5°S	143.5°W
	19	Pitcairn Island	25.0°S	130.0°W
	20	Easter Islands	27.5°S	109.5°W
	21	Isla San Ambrosio and Isla San Felix	26.0°S	80.0°W
	22	Islas Juan Fernandez	33.5°S	79.0°W
	23	Norfolk Island	29.0°S	168.0°E
	24	Chatham Island	44.0°S	176.5°W
4	25	Auckland West	36.8°S	173.5°E
	26	Auckland East	36.6°S	176.0°E
	27	Cook Strait NW	40.0°S	174.0°E
	28	Cook Strait	41.5°S	174.5°E
	29	Hawke Bay	40.3°S	177.5°E
	30	South Island NW	43.4°S	168.2°E
	31	Foveaux Strait	46.9°S	168.6°E
	32	Christchurch	44.0°S	172.8°E